

HOUSING PROBLEMS
IN
AMERICA

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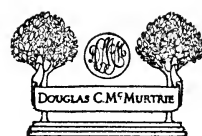
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PROCEEDINGS
OF THE
NATIONAL HOUSING ASSOCIATION
IV

HOUSING PROBLEMS IN AMERICA

PROCEEDINGS
OF THE
FOURTH NATIONAL CONFERENCE
ON HOUSING
MINNEAPOLIS
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CONTENTS

PAPERS AND DISCUSSIONS

1. HOUSING AND THE POLICE POWER	3
ARNOLD B. HALL, University of Wisconsin Madison, Wis.	
Discussed by:	
ALFRED BETTMAN, former City Solicitor Cincinnati, O.	22
ERNST FREUND, Professor of Law, University of Chicago	27
2. LAND SUBDIVISION AND ITS EFFECT UPON HOUSING	33
JOHN NOLEN, Landscape Architect Cambridge, Mass.	
Discussed by:	
E. H. BENNETT, City Planner . Chicago, Ill.	53
LEE J. NINDE, Real Estate . Ft. Wayne, Ind.	60
3. CAUSES OF BAD HOUSING	65
ELMER S. FORBES, Chairman Housing Committee, Massachusetts Civic League Boston, Mass.	
Discussed by:	
CHARLES C. STILLMAN, Secretary Associated Charities	75
4. EFFECTS OF BAD HOUSING	81
JOHN J. MURPHY, Commissioner of the Tenement House Department . New York City	
Discussed by:	
JAMES JENKINS, JR., Tenement House Committee, Bureau of Charities, Brooklyn, N. Y.	87
MRS. JOHANNA VON WAGNER, Twentieth Century Club	89

5.	TAXATION AND HOUSING	92
	C. B. FILLEBROWN Boston, Mass.	
	PROF. E. R. A. SELIGMAN, Columbia University, New York City	102
	Discussed by:	
	E. T. HARTMAN, Secretary Massachusetts Civic League Boston, Mass.	109
6.	THE PLACE OF HOUSING WORK IN A HEALTH DE- PARTMENT	113
	GEORGE B. YOUNG, M. D., United States Public Health Service Norfolk, Va.	
7.	THE ALLEY PROBLEM	131
	CHARLES B. BALL, Chief Sanitary Inspector Chicago, Ill.	
	Discussed by:	
	MAURICE R. SCHARFF, Civil Engineer Pittsburgh, Pa.	141
	GEORGE B. YOUNG, M.D., United States Pub- lic Health Service Norfolk, Va.	147

SECTION MEETINGS

1. LAWS AND ADMINISTRATION

OUTDOOR CLOSETS AND VAULTS—WHY THEY SHOULD BE ABOLISHED	
EMILY WAYLAND DINWIDDIE, Supervisor of Trin- ity Dwellings New York City	151
Discussed by:	
MRS. JOHANNA VON WAGNER, Twentieth Cen- tury Club Detroit, Mich.	157

2. CONSTRUCTION AND MANAGEMENT

LAND SUBDIVISION FROM THE POINT OF VIEW OF A DEVELOPMENT COMPANY	158
FREDERICK LAW OLMTED, Landscape Architect Boston, Mass.	

CONTENTS

vii

THE PLANNING OF THE LOW-COST HOUSE	175
WALTER H. KILHAM, Architect . . Boston, Mass.	
Discussed by:	
FRED C. FELD, Octavia Hill Association	
Philadelphia, Pa.	185
HOUSING PROGRESS OF THE YEAR	195
REPORTS ON PROGRESS OF THE YEAR FROM DELEGATES	205
RESOLUTIONS	209
DELEGATES	211
INDEX	221
OFFICERS AND DIRECTORS	225

PAPERS AND DISCUSSIONS

The National Housing Association this year presents to its members a volume of Proceedings somewhat less in bulk than that of previous years. The present volume contains all of the papers read at the Fourth National Conference on Housing in America and the formal discussion of these papers by those who were announced to lead the discussions. It omits the general discussions and the banquet speeches, as well as the detailed reports from delegates.

This is a departure from our previous practice and is deliberate. The Board of Directors in making this decision has been influenced primarily by a desire to economize, to cut down expenses. It also has felt that the members of the Association would welcome a smaller volume, and it has had considerable doubt as to the extent to which members have heretofore read or used the general discussion which has filled so large a part of previous volumes.

By making this change a very considerable saving both in the cost of publication and distribution has resulted and it is hoped that the volume has not lost either in value or in attractiveness thereby. An expression of opinion from members as to this change in policy would be appreciated by the Directors.

HOUSING AND THE POLICE POWER

ARNOLD BENNETT HALL

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THE police power may be roughly defined as the power of the state to regulate private rights in the interests of the public welfare. It is thus to be distinguished from the power of the state to deal with such matters as public property, taxation, eminent domain, public defense, judicial administration, and ordinary civil and criminal legislation. It is frequently used as a residuary term embracing all the regulatory powers of government not included in the older and more definite classifications of governmental authority. In recent years, however, attempts have been made to give the term a more definite and restricted meaning. Courts and writers have attempted so to define the police power as to indicate with reasonable exactness the constitutional limitations upon its exercise. The almost infinite varieties of regulations which the present and future conditions of society may suggest, and the general nature of the constitutional guarantees involved, make such a task impossible. It is fortunate that such is the case. If the police power admitted of such a restrictive statement as a binding precedent of law, it must follow that such a statement could only be formulated with regard to present known conditions, and, therefore, that it would preclude its adjustment to the future needs of society.

This does not mean that the content of the constitutional guarantees changes with the passing years, or

that the judiciary is authorized to alter their meaning from decade to decade to comply with popular demand or changing ideals. It means, rather, that the same constitutional theories may prohibit a form of regulation to-day which it might permit under the changed conditions of to-morrow. Some new and startling invention in sanitary engineering may cause a particular kind of tenement building to become illegal in the future which now enjoys the fullest constitutional protection. The constitutional exercise of the police power is so dependent upon the particular facts and conditions of each individual case that to give it a fixed and definite meaning would necessarily limit its usefulness in meeting the conditions of the future.

This inability to define conclusively the exact constitutional sphere of the police power, while generally recognized by the courts, frequently has not been understood by the layman. Consequently, many have reasoned that if a proposed regulation could be brought within some general definition of the police power its constitutionality would be assured. Such is not the case, for the police power, like all other powers of government, is subject to certain constitutional restrictions. The most important of these are found in the fourteenth amendment which provides that no state shall "deprive any person of life, liberty, or property, without due process of law; nor deny to any person within its jurisdiction the equal protection of the laws." In determining the effect of these provisions upon the police power it is thought best not to attempt a final and conclusive definition of the constitutional sphere of the police power, but to seek the meaning and purpose of the constitutional guarantees as applied to the regulation of private rights.

To define satisfactorily such a broad provision as due process of law seems impossible. Yet it is a limitation upon governmental action which the state must observe and the courts enforce. Its obvious purpose is the protection of private rights against governmental interference except where made in the furtherance of the legitimate purposes of government. But what are the legitimate purposes of government? They must be ascertained by reference to the legal and governmental theories current when the due process provisions were written into our fundamental law. Most of the attempts to define conclusively the police power have in fact been efforts to state or summarize these purposes. It is frequently defined as a power to regulate private rights in the interest of the public health, morals, safety, peace, and welfare. The supreme court of the United States has declared that "neither the amendment (the fourteenth amendment)—broad and comprehensive as it is—nor any other amendment, was designed to interfere with the power of the state, sometimes termed its police power, to prescribe regulations to promote the health, peace, morals, education, and good order of the people, and to legislate so as to increase the industries of the state, develop its resources, and add to its wealth and prosperity"—*Barbier v. Connolly*, 113 U. S. 27. This is generally regarded as a satisfactory summary of the legitimate functions of government, though it is by no means clear that a careful study of our legal and governmental history might not disclose other functions such as the power to protect those economically weak from the aggression of the strong. The existence of such power seems to be evidenced by the presence of usury and other like laws in our legal history.

With these legitimate functions of government historically ascertained, however, the difficult problem still remains of applying due process of law to the particular regulations involved in a given case. If the state restricts an individual's rights to no other result or purpose than the accomplishment of some æsthetic end, it is held to be void as an arbitrary violation of private rights, since it is not done in the furtherance of governmental functions which were historically considered as legitimate and proper—*Commonwealth v. Boston Ad. Co.*, 188 Mass. 348. But suppose the regulation is in the interests of the public health which is admittedly a legitimate sphere of regulation. The question remains as to whether it is only a regulation, or whether under the guise of regulation it is in fact a confiscation of property or a denial of some proper sphere of liberty.

Suppose a state law provides that in residence districts no tenement house should cover more than 10 per cent of a lot in order that there might be plenty of light and air, there could be no doubt that such a law would amount to a virtual confiscation of property rights. It is equally clear that if the law provides that not over 90 per cent of the lot should be built upon it would be a valid regulation. Some place between the two extremes there is a line, however indistinct, that separates confiscation from regulation. In deciding cases involving this question the court must decide upon which side of that line each case falls. There is no test of legal logic or formal measurement which can be applied with absolute definiteness and precision. The only criterion left to the court is that of reasonableness—not reasonableness in the sense of general wisdom, desirability, or expediency of the statute, but reason-

ableness which means in the words of Professor Freund, "Moderation and proportionateness of means to ends"—Freund, "The Police Power," p. 58. In *Welch v. Swasey*, 214 U. S. 91, the court declared that "if the means employed . . . have no real, substantial relation to a public object which government can accomplish; if the statutes are arbitrary and unreasonable and beyond the necessities of the case; the courts will declare their invalidity." In discussing the difference between what is reasonable and what is unreasonable, Mr. Justice Holmes has said, "It may be said that the difference is only one of degree: most differences are, when nicely analyzed. At any rate, difference of degree is one of the distinctions by which the right of the legislature to exercise the police power is determined. Some small limitations of previously existing rights incident to property may be imposed for the sake of preventing a manifest evil; larger ones could not be, except by the exercise of eminent domain"—*Rideout v. Knox*, 148 Mass. 368. In passing upon the tenement house law in Wisconsin, the supreme court of that state said, "There is no certain test by which what is reasonable in any given case can be definitely measured. It is a matter resting in human judgment. So the line between what is reasonable and what is not, marking the boundary of constitutional authority of the legislature, is one often difficult of ascertainment, rendering it very necessary, in all doubtful cases, for the judiciary to defer to the wisdom of the legislature"—*Bonnett v. Vallier*, 136 Wis. 193. The Nebraska supreme court has declared that "an attempt to give a specific meaning to the word reasonable is trying to count what is not number and measure what is not space"—*Altschuler v. Coburn*, 38 Neb. 881.

It must be clear from the foregoing that the constitutional validity of many police regulations will depend largely upon the particular facts and conditions to which the regulation is applied. This is a most important observation and is frequently overlooked by those who draft legislation and sometimes by the bench and bar. This is aptly illustrated by the case of *Bonnett v. Vallier, supra*. Here the legislature enacted a tenement house law applying alike to all the towns, villages, and cities of the state. The law was apparently drawn with regard only to the needs of a large city, and provided among other things for modern plumbing appliances, which on account of lack of water and sewerage in some portions of the state would make compliance with it impossible. In holding the law void because it amounted to a prohibition of the construction and enjoyment of tenement houses and exceeded in other ways the limits of reasonableness, the court said, "The most striking general feature which challenges our attention is that it applies to every part of the state, country districts, small cities and villages—every portion is subject to the same degree of regulation as the city of Milwaukee, notwithstanding the obvious fact . . . that the conditions calling for such interference are so widely different that it would seem need for classification would have occurred to the legislative mind at once, in dealing with the matter, especially in view of the requirements which are entirely unsuitable to locations where water and sewer systems do not exist, and that calls for an expensive grade of buildings common to large cities, but which no prudent man would seriously think of erecting in some situations unless he could afford and desired to devote his means to charitable uses. . . . It is

impracticable in the extreme, impossible would probably not be too strong a term to use, to comply with such requirements in many, even most, portions of the state. The result is, that, except within a very limited area, the construction and enjoyment of even the most insignificant kind of tenement houses is, in effect, prohibited by law."

The court has been severely condemned for this decision, but it is difficult to find a sound basis for criticism when all the facts are taken into consideration. This miscarriage of justice, if such it be, is to be laid at the doors of those responsible for the law. It was not drafted to meet the particular situation and conditions. Consequently, its practical result was a prohibition and not a regulation.

In determining the reasonableness of any particular interference with private rights there are certain elements which always seem material. These are the necessity of the regulation from the standpoint of the public welfare, and the degree of its interference with private rights. In the case of *Health Dept. v. Trinity Church*, 145 N. Y. 32, the validity of a statute requiring all tenement houses to be furnished with adequate facilities for receiving and using water was in question. It was contended that since such improvements would require a large expenditure to be borne by the property holder, that it amounted to a taking of property without due process of law. In disposing of this question the court said, "No one would contend that the amount of the expenditure which an act of this kind may cause . . . is within the absolute discretion of the legislature. It cannot be claimed that it would have the right . . . to command the doing of some act by the owner of property and for purpose of carrying out

some provision of law, which act could only be performed by the expenditure of a large and unreasonable amount of money on the part of the owner. If such excessive demands were made it would without doubt violate the constitutional rights of the individual. The exaction must not alone be reasonable when compared with the amount of work or character of improvement demanded. The improvement or work must in itself be a reasonable, proper and fair exaction when considered with reference to the object to be attained. If the expense to the individual under such circumstances would amount to a very large and unreasonable sum, that fact would be a most material one in deciding whether the method or means adopted for the attainment of the main object were or were not an unreasonable demand upon the individual for the benefit of the public." Where, however, public necessity is much greater, private right may be subjected to greater interference. In all such cases, the judicial effort is apparently to strike a compromise or a balance of convenience between private rights and public welfare. Another element sometimes entering in is the question of whether the regulation is retroactive or prospective. Frequently, the justification for a retroactive regulation must be founded on a greater public necessity than if it were prospective, and in some cases it would make the regulation void. While the test of reasonableness in these cases cannot be accurately defined, a careful study of the cases tends to develop an intuitive understanding of reasonableness "which outruns analysis and sums up many unnamed and tangled impressions," which will afford a reasonably clear guide when accompanied with an understanding of the particular facts and conditions involved.

Another difficulty in determining the validity of police power legislation is presented in the question of whether the regulation is really in the interests of one of the legitimate spheres of public regulation or whether such interest is only colorable and its real effect is the interference with private rights for some ulterior purpose. Due process of law zealously protects private rights against such interference. In *Health Dept. v. Trinity Church, supra*, the court declared that in order for an act to be constitutional under the police power "it must tend in some appreciable and clear way towards the accomplishment of some one of the purposes which the legislature has the right to accomplish under the exercise of the police power. It must not be exercised ostensibly in favor of the promotion of some such object while really it is an evasion thereof and for a distinct and totally different purpose, and the courts will not be prevented from looking at the true character of the act as developed by its provisions by any statement in the act itself or in its title showing that it was ostensibly passed for some object within the police power. The court must be enabled to see some clear and real connection between the assumed purpose of the law and the actual provision thereof, and it must see that the latter do tend in some plain and appreciable manner towards the accomplishment of some of the objects for which the legislature may use this power." Regarding the same question the supreme court of the United States has said, "It does not at all follow that every statute enacted ostensibly for the promotion of these ends (the protection of the public morals, the public health, or the public safety) is to be accepted as a legitimate exercise of the police powers of the state. There are, of necessity, limits beyond which legislation

cannot rightfully go. . . . If therefore, a statute purporting to have been enacted to protect the public health, the public morals, or the public safety, has no real or substantial relations to those objects, or is a palpable invasion of rights secured by the fundamental law, it is the duty of the courts to so adjudge, and thereby give effect to the constitution"—*Mugler v. Kansas*, 123 U. S. 623.

But what constitutes a real and substantial relation? Again there seems to be no test except that of reasonableness, and again that of necessity must depend upon the facts in each case. The issue is one of fact, common sense and sound discretion rather than of law. The scientific students of the housing problem with its social and economic ramifications and its intimate relation to the recognized sphere of legitimate regulations can contribute as much to this phase of the problem as the constitutional lawyer.

In the well known case of *In re Jacobs*, 98 N. Y. 98, this phase of the problem is nicely illustrated. The statute in question prohibited "the manufacture of cigars" and the "preparation of tobacco in any form" on any floor of any building in which more than three families lived "independently of one another" and did "their cooking upon the premises." The law was applicable only to cities of over 500,000 population. The relator was arrested for the manufacture of cigars in such a building. The building contained four stories, one apartment of seven rooms being on each floor. The relator lived with his wife and two children in one of these apartments, and used one room for his work. The evidence showed that the smell of the tobacco did not penetrate the other rooms of the apartment. The law was held void on the ground that

there was no reasonable relation between the interference of private right and the public health. The court said, "Nor was it (the statute) intended to improve or protect the health of the occupants of tenement houses. If there are but three families in the tenement house, however numerous or gregarious their members may be, the manufacture is not forbidden; and it matters not how large the number of the occupants may be if they are not divided into more than three families living and cooking independently. . . . What possible relation to the health of the occupants of a large tenement house would cigar making in one of its remote rooms have? If the legislature had in mind the protection of the occupants of tenement houses, why was the fact confined in its operations to the two cities only? It is plain that this is not a health law, and that it has no relation whatever to the public health. . . . When a health law is challenged in the courts as unconstitutional on the ground that it arbitrarily interferes with personal liberty and private property without due process of law, the courts must be able to see that it has at least in fact some relation to the public health, that the public health is the end actually aimed at, and that it is appropriate and adapted to that end. This we have not been able to see in this law, and we must, therefore, pronounce it unconstitutional and void."

It is clear from the foregoing that this decision turned on the question of fact, of whether there was any reasonable relation between the interference of private rights and the interests of public health. The court may have been mistaken in its judgment, but the mistake was one of fact and not of law. While it must be admitted that the court did not seem anxious to resolve

all doubts in favor of the validity of the statute, it does not appear obvious, at least to those uninitiated into the technical facts regarding tenement house conditions and the effects of the smell of tobacco upon health, that there was any reasonable relation between the act and the public health. Such might appear to be the fact if the proper evidence was available. If the manufacture of tobacco in the same building where people live is injurious to their health, and that fact can be scientifically demonstrated, there can be no doubt that a statute carefully adjusted to the particular problem would be upheld. It is the writer's firm belief that practically all legislation that can be scientifically demonstrated to be desirable can be maintained in the courts. It is well to remember, however, that in such cases the validity of the legislation will largely depend upon technical questions of fact, which, perhaps, the housing expert may alone possess, and which the courts have no machinery to acquire. Those interested in housing legislation would render a valuable service if they could keep in touch with all litigation involving the constitutional validity of housing laws in order to see that counsel in charge are familiar with the particular facts which form the constitutional justification for the law.

Among the questions that now engage the attention of the housing expert is that of how far the state may regulate the height of buildings. These regulations are generally made for one of several purposes, either to protect the public health by making ample provision for sunlight and fresh air, or to safeguard the public against the dangers from fire, or to relieve the problem of street congestion or to serve some æsthetic purpose. It is generally agreed that the state cannot regulate

private rights for æsthetic purposes only. However, if it can be demonstrated that there is a definite and reasonable relation between civic art and public health and morality, as is contended by some thinkers, even such regulations may be supported, but only when that question of fact can be satisfactorily determined. All the other purposes mentioned are regarded as legitimate, and reasonable regulations in their behalf have been upheld—*Attorney General v. Williams*, 174 Mass. 476; *Welch v. Swasey*, 193 Mass. 364; affirmed in 214 U. S. 91; *Cochran v. Preston*, 108 Md. 220; *People v. D'Oench*, 111 N. Y. 359.

The difficult question, of course, is how far may the height of buildings be regulated. The question is one of fact as much as it is of law. It depends upon the balance of convenience between the necessities of the public health, safety, and welfare and the degree of interference with private right, which again depends largely upon the facts and conditions to which the regulation will apply. If the framers of housing legislation will go no further than a scientific and searching study and analysis of all the facts will amply justify, guarding against any unnecessary interference with private rights, and grounding each provision upon a legitimate public interest, scientifically established, there will be few, if any, cases of judicial interference. To justify the largest possible degree of public control, the statute, both in its provisions and administration should be as elastic as circumstances will permit, leaving open to the individual every possible alternative consistent with the public welfare. Thus a low limitation upon the height of buildings in a residence section will stand the test of reasonableness much better if, instead of an absolute limitation applying to all the

section, the law provides a sliding scale for the height of buildings, dependent upon the width of the street and the amount of yard space.

Of similar character are the regulations fixing the amount of yard space, requiring sanitary plumbing, providing protection against the possibilities of fire, limiting the number of persons sleeping in the room according to its air capacity, and like provisions for the protection of the public health, safety and order. Such provisions if reasonable are universally upheld—*Comm. v. Roberts*, 155 Mass. 281; *Tenement House Dept. v. Moeschen*, 179 N. Y. 325; *State v. Hyman*, 98 Md. 596; *Health Dept. v. Trinity Church*, 145 N. Y. 32; *Commonwealth v. Maletsky*, 203 Mass. 241.

Perhaps the most interesting legal problem in connection with housing legislation is that of "zoning"—the dividing of cities into districts and restricting those districts, more or less permanently, for certain designated purposes. It has been insisted that such a system is necessary to effective city planning and to the highest and most economical development of the community. Two problems are involved here, that of classification which will be discussed later, and the problem of the authority of the state under its police power to restrict specified sections of the city to certain designated purposes. If the purpose of the act is a legitimate public purpose, and the means adopted are reasonably well adapted to the end sought, and the degree of interference with private rights is not excessive, it would seem to come within the constitutional power of government. Thus an ordinance prohibiting certain designated businesses such as brick yards, rolling mills, laundries, and wood yards from the residential districts has been upheld—*Ex Parte Wo*, 161 Cal.

220. The court said, "There can be no question that the power to regulate the carrying on of certain lawful occupations in a city includes the power to confine the carrying on of the same to certain limits, whenever such restrictions may reasonably be found necessary to subserve the end for which the police powers exist, viz., to protect the public health, morals, safety, and comfort." The same ordinance was upheld in two later decisions when applied to a lumber yard and a brick yard—*In re Montgomery*, 163 Cal. 457; *Ex Parte Hodacheck*, 132 Pac. 584. In the latter case the court declared that "the burning of brick is a trade which may, when conducted in close proximity to dwelling houses, be so offensive to those residing in the vicinity as to constitute a nuisance. This is true of all trades which, in their operations, involve the discharge of smoke or offensive odors into the surrounding atmosphere. . . . The power to regulate the use of property or the conduct of business is, of course, not arbitrary. The restriction must bear a reasonable relation to some legitimate purpose within the purview of the police power." The same has been held regarding the following: a steam carpet beating machine, *Ex Parte Lacy*, 108 Cal. 326; livery stables, *State v. Beattie*, 16 Mo. Ap. 131 and *Newton v. Joyce*, 166 Mass. 83; the slaughtering of cattle, *Cronin v. People*, 82 N. Y. 318.

Where the business which is prohibited in a residence district is of such a nature as to constitute a nuisance when in a residence community or increase the danger from fire, the restriction will be held valid if reasonable. But the difficult question is raised by the recent efforts in a few cities and states to establish residence zones and restrict from such zones all businesses regardless of their nature or character (Report of Heights of

Buildings Commission to the Board of Estimate and Apportionment of N. Y., Chap. 4). If the business is one that in no way mitigates against the public health or safety upon what ground can it be supported? As already noted, mere æsthetic grounds afford no constitutional justification for the invasion of private rights. It has been contended and with much force that such restrictions would tend to secure a better ordered city, and improve and control its development along sound, economic lines. It would save to the community the great losses incident to the continual shifting, geographically, of the various interests of the city with its consequent useless waste of property due to the inability to adapt it to the changing needs of its district (Report of the Heights of Buildings Commission to the Board of Estimate and Apportionment of N. Y. p. 28-32). If these and similar facts can be established the legislation might conceivably be brought within the economic aspects of the police power as somewhat analogous to the fields of conservation and compulsory joint improvement which are considered legitimate governmental functions. This will become an interesting field of legal investigation as soon as we can have an authoritative statement of the facts. A new phase of this problem is introduced by the Wisconsin legislation (Laws 1913, chapter 743) which authorizes cities to make such districts and provides further that any person sustaining damage to his property by reason of such action by the city "may recover such loss or damage from the city." This would seem to introduce the question of eminent domain with its accompanying question of what constitutes a public purpose for its exercise.

The final question to receive consideration is that of classification. It is generally admitted that some form

of classification of cities, or sections of cities, or kinds of houses, is necessary to a scientific program of housing legislation. The question then arises as to how far the constitutional guarantee of equal protection of the law limits this right. In *Barbier v. Connolly, supra*, it was said that the very necessities of society demanded that legislation of a special character, having for its object the public health, safety or welfare must often be had in certain districts. The court continued, "Class legislation, discrimination against some and favoring others, is prohibited; but legislation which, in carrying out a public purpose, is limited in its application, if, within the sphere of its operations, it affects alike all persons similarly situated, is not within the amendment." The court upheld the law in question which prohibited the operation of laundries in the night time in certain prescribed sections of the city as a precautionary measure against fire. No constructive theory of the limitation of the power of classification seems to have been formulated by any court. The cases seem to hold that the classification to be valid must be based upon some inherent difference in the nature of the thing classified and not upon some accidental or irrelevant difference, and that there must be a reasonable relation between the classification and the legitimate purposes of the act. This again involves the test of reasonableness and questions of fact. To classify the cities of a state according to population for the purpose of drafting housing legislation is valid—*Tenement House Department v. Moeschen, supra*. In *Bonnett v. Vallier, supra*, one of the grounds urged for holding the statute void was that the law was extended to all the villages, towns, and cities alike, when the difference in the conditions was notorious. In *Welch v. Swasey, supra*, the divi-

sion of the city into residence and business portions for the purpose of restricting the height of buildings was upheld, while in *Ex Parte Wo*, *supra*, the districting of a city into residence districts for the purpose of safeguarding them from noxious businesses and employments was held valid.

The writer has sought to explain in this paper the effect of the fourteenth amendment upon the police power of the states as applied to the problems of housing legislation. The thing to be emphasized is that in the application of such broad constitutional guarantees to the complicated problems of modern life, where no definite tests are available and where in the last analysis it is a question of judicial reasonableness, that a proper understanding of all the facts, social, economic, and scientific is indispensable to an enlightened and consistent administration of the law. Unfortunately, our courts of law have no machinery by which they can inform themselves upon the facts relevant to their decision. They must rely upon the resourcefulness and ingenuity of counsel. Too frequently the practitioner fails to see that the crux of an important constitutional decision is the question of fact. Even if he sees it, it is only too likely that there are not at hand reliable sources of information which he can bring to the attention of the court. It has been said that the fate of police power legislation is ultimately determined by the economic theories of the courts. That may be true, but when a court resorts to economic or social theories, it is generally because it is not confronted with the economic and social facts scientifically established. If the students of the housing problem will view with sympathetic understanding this dilemma of the courts; if they will see to it that the facts of social, mechanical

and medical science in so far as they affect the housing problem, are carefully collected, and that their constructive programs of legislation go no faster than their scientific investigations show the way, the writer ventures to suggest that the work of the judicial administration will move more smoothly, discontent with our legal institutions will diminish, and the cause of housing legislation in particular and scientific legislation in general will be permanently advanced. Constitutional rights need not bar the pathway of social reform. Properly understood they serve as guide-posts, directing reform along legitimate and consistent channels, and exacting at each turn, the test of scientific efficiency. If this be true, may it not now be said that the framers of the constitutional guarantees builded even more wisely than they knew.

DISCUSSION

HOUSING AND THE POLICE POWER

ELMER S. FORBES, Presiding

ALFRED BETTMAN, *Former City Solicitor, Cincinnati, O.*

In his recent book on "Property and Contract in their Relations to Wealth," Professor Richard T. Ely speaks of the police power as one which is exercised by the courts; as, for instance, when he defines police power as "the power of the judge to declare what property carries with it and what does not carry with it."* As almost every piece of social legislation is subjected to attack in the courts and many do not survive, this definition of Professor Ely may seem to the layman an accurate description of the situation. From the point of view of the lawyer, however, this is not technically accurate. The police power is a legislative power and resides, therefore, in the legislative departments of our governments. It is the general power of the legislatures to place such restrictions on liberty and property as may in their opinions be necessary to promote the general welfare of the community. The legislative organs of the government must, in the first instance, decide upon the extensions of the police power which are required for the public welfare. The healthy growth of the police power and its capacity for adaptation to new social conditions will tend to be promoted by

*Ely "Property and Contract in their Relations to Distribution of Wealth," Vol. 1, 205, 206.

placing the proper emphasis upon the prime position of the legislature in the determination of the scope of the police power. The function of the courts is to interpret and define the limits which our written constitutions have placed upon the exercises of the police power.

The courts have, therefore, the somewhat difficult duty of defining the limitations of a legislative power which they themselves have so frequently declared to be without definite or definable limits. In the language of the United States Supreme Court, the police power is "one of the least limitable of the powers of government."* As changes in social and economical conditions develop the need, from the point of view of public welfare, for new forms of restraint upon the free use of private property or for the imposition of new duties upon persons or property, the recognized scope of the police power will tend to expand accordingly. The power must not be exercised arbitrarily—this the courts affirm in each case relating to police power. The statute or ordinance must bear some reasonable relationship to the satisfaction of some social need. What is, however, arbitrary at one time or place might be quite reasonable at another time or place. To require lights at night in the halls of farmhouses might be considered rather arbitrary, whereas the need of such requirement for tenement houses is obviously wise. So the recognized sphere of the police power grows as public opinion comes to recognize the necessity for such growth. In the oft-quoted language of Mr. Justice Holmes of the Supreme Court of the United States, "In general police power extends to all great public needs. It may be put forth in aid of what

**District of Columbia v. Brooke*, 214 U. S. 149.

is sanctioned by usage or held by the prevailing morality or strong and preponderant opinion to be greatly and immediately necessary to the public welfare.”* Judges are not as impervious to public opinion as impatient social reformers sometimes think. In creating public opinion favorable to new forms of social legislation, therefore, such associations as the National Housing Association are actually engaged in more or less directly enlarging the scope of the police power.

In the procedure of the courts in cases upon the validity of social legislation, there are signs of one or two very refreshing developments which, if continued, will tend to make the scope of the police power more adaptive to social needs and public opinion. The general rule applied by the courts has been that both the intention and reasonableness of the legislation under attack must be gathered exclusively from the text of the statute or ordinance itself in the light of the judge’s general knowledge of the ways of the world. If, for instance, the city council should prescribe a certain residential district, the reasonableness of its action would have to be judged solely and exclusively from the language of the ordinance itself, and if the ordinance did not disclose its own justification, it might be invalidated as a capricious or arbitrary performance. There are now, however, indications that the courts may be willing to depart from so narrowly technical a procedure and to consider evidence as to the knowledge or information upon which the legislative body based its action. For instance, in a recent case in New York,† dealing with a statute prohibiting night work for women, the court took into

**Noble Bank v. Haskell*, 219 U. S. 104.

†*People v. Schweinler Press*, 214 N. Y. 395.

consideration the facts and conclusions contained in the report of a legislative commission concerning the effect of women's night work upon public health, and the court upheld the statute on the ground that this report demonstrated the reasonableness of the statute and its relation to the promotion of public health. We may confidently expect that this wise departure from previous narrowly technical procedure will be generally adopted by the courts. Thus the report of a social survey or other special investigation leading up to a housing or city-planning ordinance might be received in evidence and used to justify and sustain the ordinance.

A similar encouraging development is found in the increasing use, both in lawyers' briefs and court opinions, of the data furnished by modern social, economic and political science. The law relating to the validity of housing and other social legislation has been generally treated as a branch of the law of nuisances, and the justification of any particular piece of such legislation has generally been sought in the precedents regarding nuisances. A slaughter-house in a residential district had generally been held a nuisance; therefore a slaughter-house may be legislated out of residential districts; the cases do not seem to have treated an ordinary manufacturing plant as a nuisance; therefore to prohibit such establishment in a residential district is necessarily an unconstitutional interference with property rights. This is a picture—overdrawn and oversimplified, of course—of the traditional atmosphere of judicial decisions upon housing legislation. Both courts and lawyers have happily for some time been growing out of this narrowly technical emphasis upon precedent. And now the courts show a tendency or willingness to

listen to arguments based upon the facts and forces developed in modern social, political and economic sciences and modern social investigations. In the above described case concerning night work for women, the highest court of New York completely reversed a decision it had given a few years earlier; and it justified this complete change of opinion by pointing out that in the latter case there had been presented to it a mass of data and learning, the results of special studies of the effect of night work upon the health of women workers.

Obviously these changes in judicial procedure promise a greater adaptability of the police power and our written constitution to the solution of the complex problems of modern society. This greater adaptability will relieve the tension that threatened to arise between the courts and a public aroused and informed by the researches of social workers and students. In framing legislation, legislative bodies may be expected to rely more and more upon the work of experts and scientific investigation. These changes promise increasing opportunities to housing and other social service experts to render that assistance to the courts which Dr. Hall has shown to be so important. These changes cast upon social workers and students a greater responsibility than ever before and emphasize the necessity for conscientious care and thoroughness in the gathering of data and formation of conclusions. The police power will be found big enough and strong enough to enforce against the individual or property all such restraints and duties as shall be demonstrated by careful, thorough, and scientific study to be necessary for the public welfare.

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The difficulty in trying to state the constitutional law regarding housing legislation is that issues of power are apt to be made which are too general to have any practical meaning. It is true that the letting of lodgings is more in the nature of an exercise of ownership, and less in the nature of a business than most other relations which the state undertakes to regulate; but the fact that landlordism is not yet altogether commercialized does not of course withdraw it from the exercise of the police power, and if there is any kind of property affected with a public interest more than any other, it is tenement house property.

In reading the two leading New York cases—the Trinity Church case, 145 N. Y. 32, and the Moeschen case, 179 N. Y. 325—we are struck by the generality and the untenability of the contentions of the defendants, namely, that in some way requirements, because they entail expense, are inconsistent with the right of property; of course there can be only one answer to this contention, and it is not surprising that the United States Supreme Court upon appeal disposed of the second case without writing an opinion. It helps us little on the other hand to be told simply that tenement legislation, being an exercise of the police power, will not be interfered with by the courts; the New York decisions appear to have been understood in this sense in some quarters and hailed as great victories for the cause of tenement reform. Personally I cannot believe that the unqualified endorsement of legislative power is in itself a cause for congratulation, nor can the New York decision be read that way, for it says distinctly that the public purpose must be possible of accomplishment at some reasonable cost, regard being had to all

the surrounding circumstances; and that extravagant housing requirements are not immune from judicial control, has been shown quite conclusively by the decision of the Supreme Court of Wisconsin in annulling a tenement law of that state enacted without any discrimination, and since superseded by one more moderate in its provisions (Act of 1907, *Bonnett v. Vallier*, 136 Wis. 193; 1908; new law of 1909.)

To state a proposition of constitutional law is to claim a power of judicial review over legislation. This is always an unfortunate issue, and with careful methods of housing legislation it can generally be avoided; for judicial and legislative ideas as to what is reasonable are not apt to differ much, and the legislature has the advantage over the courts of having ampler sources of information as to facts and conditions. Well drawn laws are therefore very apt to be sustained.

If we could, however, get away from the idea that constitutional limitations are merely weapons of judicial attack, and become accustomed to looking at them as rules enjoining the wisest and soundest principles of legislation, we should enter upon a much more fruitful field of examination. From that point of view the problem of the police power and housing laws is the problem of transcribing the very unsatisfactory concept of "reasonableness" into more specific terms, and of giving due weight to the factor of individual right as having an intrinsic and permanent value in a free community.

I believe the following propositions should be accepted as embodying desirable principles of legislation:

1. The standard of housing legislation should be the accepted standard of the American community, except in so far as that standard falls short of essential

sanitary and safety requirements. The reference to the American community is meant to indicate that, so far as practicable, the law may legitimately resist the introduction of inferior foreign standards.

The police power is a corrective and not a formative power; it is beyond the power and, therefore, beyond the function of the state to impose superior standards that are not justified by economic or social conditions. While this principle is as a rule self-enforcing, it is yet useful to start out with a definite viewpoint, and if it had been borne in mind, some of the provisions which proved fatal to the Wisconsin law would never have been written into the statute.

Probably this limitation of the power of housing legislation is accepted by reformers as necessary, even if more would be desirable. It is acknowledged by Mrs. Bacon when she says (1912, p. 54),* "We cannot ask for the things that make life worth living, only for those things that make life less terrible," or by Mr. Veiller when he concedes (1912, p. 71)* that the absolute prohibition of taking in lodgers would be unreasonable and not within the police power.

2. Housing legislation should respect vested rights. The courts recognize that the expense of required improvements should be proportionate to the value of the property, though not necessarily to the value of the equity above the incumbrances; it was the latter contention that was rejected in the Moeschen case. It is a question of "what the traffic will bear." In the Moeschen case the jury was allowed to pass upon the reasonableness of the required expenditure, and the court regarded that as a conclusive finding of fact; but it would be desirable to evolve some more precise

*Housing Problems in America—II, 1912.

notions as to what may be exacted, just as is being done now in connection with public service rates.

The Moeschen case involved another aspect of vested rights. The arrangement required to be removed and to be superseded by one demanded by the new law was in compliance with the requirement of an earlier act. While it would be impossible to insist that such a state of things should preclude the exercise of legislative power under all circumstances, yet it might well be recognized as a normal principle that expenditures made upon the faith of an existing law should at least be allowed to be amortized by having their benefit a sufficient length of time. It is hardly conceivable that such a practice should jeopardize essential public interests.

3. Housing legislation should maintain a due regard for personal rights. Even if letting tenements is justly treated as a business, the use of rented lodgings with all that pertains thereto is of the essence of private life. Sanitary requirements will still have to be enforced but the right of the tenant is a countervailing interest of a higher order than the right of the landlord, and that the occupant of a tenement is as a rule poor and often a foreigner should make no difference. The suggestion that the landlord should be made responsible for the observance of restrictions placed upon the user of apartments (1912, p. 70)* will not merely tend to greater effectiveness, but will be likely to shield the tenant from undue official interference and annoyance.

It is surprising to me that a liberal power of night inspection should have been advocated at meetings of this association. We deprecate overcrowding as a

*Housing Problems in America—II, 1912.

violation of privacy, and yet it is urged that it is necessary to overcome our prejudice to the entrance of inspectors at night (1912, p. 41).^{*} If people have been used to it all their lives there is nothing necessarily shocking or indecent in the sharing of the same rooms by different members of the family or by lodgers, but every sense of dignity or independence must be lost if a private dwelling is raided at night while the occupants are asleep, as if it were a gambling den or a place of prostitution (1912, p. 65).^{*}

I am also skeptical with regard to Mr. Veiller's suggestion that the right to take lodgers should be made to depend upon the consent or permit of the board of health. In that general form the requirement would constitute an intolerable interference with a practice that in many cases is harmless and justly considered a matter of no public concern. The consent would imply an official discretion without any statutory guidance, and in many jurisdictions this would be a constitutional objection. In any event it is vesting in officials an undesirable power capable of abuse. I believe the importance of carefully circumscribing administrative powers is not sufficiently appreciated. The maintenance of the formal safeguards of individual rights is in its way as worthy of consideration as health, decency and comfort.

4. The constitutional principle of equality demands that there should be no unnecessary discrimination and every proper differentiation. Like conditions should be subject to like requirements and restraints, while mechanical uniformity may create gross inequities. The main judicial objection to the Wisconsin law was that some of its provisions, if applied outside of cities,

^{*}Housing Problems in America—II, 1912.

were absurd and impracticable; on the other hand, there are provisions which should properly be applied to buildings wherever located or to rooms no matter in what houses. Administrative considerations may of course justify relaxation when under indiscriminate application the burden of enforcement would exceed available resources.

A housing law should be a state law not merely to ensure the rule of equality but because certain desirable provisions are beyond the usual ordinance power, and because in small cities it may be difficult to have housing codes drawn with sufficient expert assistance.

It may be finally observed that the more regardful a law is of legitimate claims of private right, the easier it will be to apply its provisions with vigor and impartiality, while unjust provisions and excessive powers are apt to produce administrative demoralization. Considered from the widest point of view there is no conflict between the interests of legality and the interests of reform.

LAND SUBDIVISION AND ITS EFFECT UPON HOUSING

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BROADLY speaking, city land, from the point of view of land subdivision, may be put into three main classes, namely: land for industrial use; land for retail and wholesale business; and land for residential purposes. The principal field of land subdivision, however—the class which concerns at least two thirds of all city land—is residential property. In fact, when land subdivision is spoken of, it is ordinarily assumed that it refers to the laying out of land for dwellings. The evils of undesirable and unintelligent land subdivision in the case of residential property are also more apparent and more in the public eye than in the case of industrial and business property. There is a widespread feeling in this country and abroad that city planning has thought more of streets, of civic centers, of parks and playgrounds, and of other subjects, than it has of land subdivision and of housing. Foreign town planners are constantly asking, “Why is housing not given more attention by city planners in the United States?”

WHY LAND SUBDIVISION HAS NOT BEEN GIVEN MORE ATTENTION

There is much to be said, however, in answer to this question. There are reasons why land subdivision and housing have not been given more atten-

tion by city planners in this country. Some of the more important are the following:

1. On account of the federal constitution, which provides that private property cannot be taken except for public use, and with due process of law and just compensation, and on account of the conservatism of our courts in interpreting the constitution and the law, it is always very difficult and often very costly to regulate land subdivision and housing by public authority.

2. The rights and limitations of American municipalities have been such that so far as land subdivision controls, that is, location, width, etc., of streets, the width and depth of lots, and the location, density and spacing of buildings, except tenement houses—all these features have been beyond public authority or else have often been largely determined before the outlying sections have been included within the city boundaries; on the other hand, there has practically been no effective control of such matters by rural or county governments.

3. Public opinion generally was not, and in fact is not yet favorable to the strict public regulation and control of the laying out of residential neighborhoods. It is indeed very difficult to make an advance, even in sanitary requirements, in measures for the reduction of fire hazard, in the reasonable protection of light and air—administrative regulations which might naturally be expected to receive attention in advance of broad city planning. In an address last month before the American Public Health Association, Dr. William T. Sedgwick recounted the victories of municipal sanitary engineering in recent years, but at the same time pointed out many flagrant failures in American sani-

tation. There is a widespread feeling that public health matters should have first attention. Thus, the obstacles to regulating and controlling land subdivision are greatly increased in this country by the "laissez-faire" doctrine, by what is known as the rights of individual property, and by the strength of vested interests.

4. Until recently, aside from a few large cities, and other important but nevertheless exceptional developments, the characteristic housing in American towns and cities has seemed relatively good, so far as the subdivision of the land and city planning could affect it one way or another. The actual lots as built upon have been, usually, from 20 to 40 feet in width, and 100 feet or more in depth, with a density of eight or ten houses, or less, to the acre—the standard of the best English garden city development.

5. The disinclination of private capital, except in the case of a few employers for their own employees, to respond to invitations and opportunities to invest in housing schemes on the limited dividend principle, yielding only the normal business interest on invested funds of, say, 5 or 6 per cent, is another reason why housing and land subdivision have not apparently been given more attention in this country by landscape architects and town and city planners. Co-operation or co-partnership in housing schemes, as in other matters, has not yet succeeded in the United States as it has in Europe.

To avoid misapprehension, however, it should be added that every one of these reasons has recently been losing its strength. Largely through the energetic and well-directed efforts of the National Housing Association, the public is becoming more and more aware of

the need and advantages of a somewhat radical change with regard to all of them. It is also becoming convinced that much of the housing in the United States that seems good is not good, and that large lot sizes do not necessarily result in safe, sanitary and pleasant homes.

RELIABLE DATA ON LAND SUBDIVISION

One hesitates and is naturally timid in attempting to discuss land subdivision and its effect upon housing, because so little reliable data of any considerable extent exists on the subject. Much laying out of land has been done, but the merit of one scheme as against another has not been tested. To give a basis for conclusions and to guide future action in this matter, the Executive Committee of the National Conference on City Planning recently determined to make a systematic compilation of facts and of well digested opinion in regard to the most effective and satisfactory units of land subdivision for various purposes and under various conditions in American cities. The instructions to this committee are, broadly, to gather and digest any information likely to be of practical assistance to those responsible for maintaining and improving the quality of land subdivision plans. It is the intention to gather the essential facts about the more important types of subdivision plans which have been tested in actual use in the United States, and which have proved their advantages or disadvantages to the developer, to the owners and occupants, and to the general public. An effort will be made to concentrate the study mainly upon a limited number of selected urban districts, representing large, small, and middle-sized cities, some flat, some hilly, located in different

sections of the country. The investigation will seek to discover the physical results, the sociological results, and the financial results of the various types. The more important points outlined for study are, depth of lot, width of lot, width and improvement of streets, and building or other restrictions.

The first results of this committee's investigation are now available, the local committees from the following municipalities having reported:

Berkeley	Kansas City, Mo.
Boston	Louisville
Bridgeport	New York
Brookline	Newark
Chicago	Philadelphia
Cleveland	Syracuse
Detroit	Washington

The gist of the conclusions deduced by the local reporter as summarized in the committee's preliminary report may be stated as follows:

1. *Lot Size*

(a) Philadelphia is in a class by itself, with lot sizes averaging 15 feet by 60 feet.

(b) New England, based largely on returns from Boston and Brookline, is irregular, but the tendency is toward lots from 40 feet to 60 feet in width, by 92 feet to 100 feet in depth.

(c) New York and Newark show lot sizes from 20 feet to 25 feet in width, by 100 feet in depth.

(d) Middle and western states have had larger lot sizes, with later tendencies toward reduction in both dimensions.

2. *Lot Size Change Tendencies*

(a) The general tendency shows a reduction in depth except in New York, Newark and Chicago, the former put at 100 feet and the latter at 125 feet respectively. These depths have been maintained as a standard for New York and Newark for 100 years, and for Chicago for 40 years.

(b) Cities which had lots deeper than 100 feet show a tendency to revise to that figure.

(c) New England, with its irregular lot sizes, shows a tendency below 100 feet for depth.

(d) Philadelphia shows tendency to smallest possible lot dimensions.

(e) With the exception of Philadelphia, the lot widths in all cities tend down to about 30 feet, while lots wider than 20 feet are recommended everywhere.

3. *Effect of Lot Size on Type of Development*

(a) The lot area seems to be the original determining factor. Deep lots are made narrow, and narrow lots lead to narrow buildings, usually undesirable for residence or business. Deep lots, even down to 70 feet or 80 feet, tend toward having rear buildings, often residences. These conditions lead toward congestion and low values.

(b) Except in Philadelphia, the lot size has generally influenced the building size, and the number of buildings per lot. In Philadelphia the desire for the single family house has developed the small size of lot.

4. *Effect of Lot and Incidental Building Size on Real Estate Values*

(a) Where growth is active, either in number of residences or conversion to other uses, the existing lot

and building size is of little moment. Where conversion is slower, the larger plots are worth more, because more easily converted.

(b) Established poor occupancy tends to depress, or at least restrain increase of values, through natural depreciation and the shift of classes of occupants depending upon the condition of the dwelling.

5. *Effect of Restrictions on Conditions*

Legal restrictions as to per cent of lot which may be covered, the shape and size of courts, and location of buildings on lots must be added to conditioning lot sizes, if best results are to be obtained.

6. *Standard Dimensions*

(a) The results of the investigation so far seem to show that standards are exceedingly desirable.

(b) A lot depth of 100 feet to 125 feet is the apparent aim of best standardized conditions and of present tendencies. There is considerable data and opinion to justify even shallower depths for certain classes of dwellings.

(c) In any event, restrictions should be imposed by law.

The data upon which the general conclusions given above are based, is summarized in the supplement to this paper. The references to alleys have been omitted because of their incompleteness and also because a session of this Conference is to be devoted to the subject. The Supplement to this paper also includes the answers to the questionnaire sent out by Mr. Veiller and presented as a part of his valuable paper on "Buildings in Relation to Street and Site" at the Third National Conference on City Planning.

WHAT IS THE PURPOSE OF LAND SUBDIVISION?

What, it may be asked, is the controlling purpose of land subdivision in the United States? The question is not what should it be, but what it is? The controlling purpose of land subdivision is profit. The aim normally is to make money by dividing land in such a way as to realize the largest financial returns. We do not say that this should not be the controlling purpose, nor that it controls always, or even usually, to a degree open to criticism. We are merely stating a fact that must not be lost sight of if our discussion of this subject is to be fruitful. Indeed, the owner or operator who subdivides the land often considers very definitely the effect of the plan upon the purchaser or user of the land, and upon the public, but this consideration is subordinate. As in other forms of business, his controlling purpose is profit.

A fair question for consideration here is, should the form and character of land subdivision be determined so largely by the will of the land owner or operator, whose main motive is profit? If not, who have claims for consideration, and upon what do such claims rest? Is land different from other things that are bought and sold?

There are really three parties to every land subdivision: the owner or operator; the prospective user, either as owner or tenant; and the public. It would be a great advance if we could come to look upon these three parties as partners, with certain interests in common in the proper subdivision of land.

This is not the occasion for a discussion of the legal or economic aspects of property, but our practice in matters of land takings and taxation, and our repeated statements with regard to the possession or use of

property in land, show that the law regards it in a different way from other private property.

We have here no quarrel with private ownership in land. On the contrary, there is much to be said in its favor. It fits in and appears at present to agree with American institutions and characteristics. Our objections, so far as we have any, are with the misuse or uncontrolled ownership of private property in land—a misuse or uncontrolled ownership that very often reacts unfavorably not only upon the user of the property, be he owner or tenant, and upon the public, but also upon the original developer or real estate operator who continues to own parcels of near-by land.

REGULATION OF LAND SUBDIVISION

The problem of land subdivision, we believe, is largely public regulation, control and restriction. In fairness to all concerned, what should the real estate operator be allowed to do in this very important matter of dividing up and selling his property, cutting up land upon which people are to dwell for ages to come, changing agricultural acres wholesale into a form from which they can be changed again, if at all, only at great cost?

The principle of restrictions in the subdivision use of land is well understood in the United States, and very frequently applied. In fact, it is so well understood and so highly valued that it is most often applied in a surprisingly thorough-going way by the real estate operator in his own interest. The restrictions placed upon the purchaser in the conveyance of the property often include a long list of kinds of business which are classified as nuisances, and which may not be established or maintained upon the property; regulation as

to stables and garages; fences and walls; set back of buildings from streets and from lot lines; minimum cost of buildings; easements and rights of way for public utilities, and in some cases the approval of plans and specifications including nature, shape, kind, height, material, color scheme and location of buildings, and the grading plans of the plot to be built upon. These restrictions or conditions are often placed for a period of twenty-five years or more, with the right of renewal, subject to the assent of the owners. But after all, can we depend entirely upon the knowledge, skill and motive of the owner or operator to subdivide the land and place the restrictions? At best, his action is uncertain, it is applied only in spots, often spasmodically, and, even when most "public spirited," as we say, it is not always intelligent. Again, his chief motive must be profit. He cannot reasonably be expected to have consistent and permanent concern for the results of his methods upon the future occupants of the property, nor upon the general public. Then, may we not add, he does not always know what is best; and if he did, not owning or controlling all the property of the city or town, or even a large percentage of it, he would not be able to make his knowledge effective. Furthermore, he has only the power of a private citizen.

In land subdivision, therefore, we must rely more and more on the right and necessity of the public to regulate private property with due regard to all the interests affected. In its final form, this means the zone system of building districts; that is, the division of the city into areas each devoted primarily to industry, to business, and to residences. There might probably be further subdivisions of the residential districts into

zones for different classes of dwellings, separating especially apartment houses and tenements from single-family houses. In defining these building zones, consideration should be given both to the rights of the community and the rights of private property owners. In the long run, these interests will prove to be more nearly identical than they are generally believed to be, and one of the best reasons for districting a city is that it makes general real estate values in all sections higher and more stable. The fixing of the boundaries for the various districts is as important as it is difficult. These boundaries should be determined not only by present conditions, but by a careful forecasting of the probable future conditions. In general, the prevailing opinion on this subject is that many of the areas should be relatively small, and they should be subject to change periodically, with changing conditions. Districts should be established in such a way as to help industrial, business and residential interests; that is, effort should be made to provide each district with the best possible facilities for its purposes. In other words, the zoning or districting of a city in connection with land subdivision should help all kinds of buildings by discriminately limiting them to those districts in which they naturally belong, and by providing a first rate development in each district, for the various types of buildings. Each district or subdistrict will thus have its appropriate restrictions so as to safeguard it. The points of greatest importance will be depth of lot, percentage of lot allowed to be covered, or density per acre, and the height of buildings.

Some authorities hold that the housing question is primarily a question of land values. They claim that the value of a lot is dependent on the revenue from it,

and that if building laws and local usage permit overbuilding on a lot, the buyer must pay more for the land, even though he intends to build only a small house. In other words, where the value of a lot is high as a result of building laws, the owner of the land must build compactly or lose money. Thus the density permitted and the value of the lot react on each other. If this view is sound, it follows that the proper regulation of the laying out and occupancy of the land can do much to improve housing conditions. Furthermore, some American writers hold that the rent payer's minimum outlay for house rent becomes an important factor in determining wages. Therefore, should not the minimum standards of housing be a home that meets the requirements of safety, health, convenience, privacy, and that degree of agreeableness which is considered essential? Of course these minimum standards require more accurate definition. Such minimum standards, we believe, would prove advantageous not only to the workingman and his employer, but eventually to the land-owning class also. The greatest burden of the present system, however, creating automatically as it does excessive congestion and slums, falls finally on the community.

UNDERLYING PRINCIPLES OF LAND SUBDIVISION

Some of the underlying principles of land subdivision generally accepted as sound may be stated as follows:

1. The plan for the subdivision of property should fit the topography, and give due consideration to natural features.

2. Even if the land is relatively level, the plan should nevertheless have interest, good organization and design. The point of view that leads to a good

arrangement on hilly ground, gives also a good arrangement on level land. This was illustrated in a measure in the competition for the subdivision of a quarter section of land carried on by the Chicago City Club. Although the land was described as level, none of the plans awarded the prizes followed the characteristic checkerboard plan which usually prevails on such property in American cities.

3. The use that is to be made of the land should determine its general plan and restrictions. There is no plan that is best for all places, nor for the same place for all time. Merit is largely a question of fitness for its original purpose, and its adaptability or convertibility for probable future purposes.

4. Thoroughfares, and other broadly related city planning features, should be located first, and within these lines and in conformity to them, local streets, blocks and lots should be defined in the best possible manner.

5. The various standards for various classes of property, the lot widths and lot depths, the block widths and block depths, recognized by the best authorities should be applied with skill and discrimination. These are by no means absolute or fixed; they are still open to discussion, and in each case are largely matters of nice judgment. Still, there is some law. For instance, the minimum requirements of detached, of semi-detached, and of row or grouped houses, in all of which, for this purpose, there is substantial agreement, determine largely the width and depth of lots. The size of lots determines largely the size of blocks; the blocks determine the lay-out of the neighborhood. These, in turn, react upon street widths, playgrounds, and other public features.

6. An increase of lots or residence sites by new land subdivisions, and of the necessary streets, should be accompanied by a corresponding increase of playgrounds, parks, and other indispensable public features required by the probable population of the area when fully built up. The best time to make these reservations of public spaces is when the land is first subdivided. The cost should be assessed in accordance with the benefit.

7. The interests of the real estate operator, of the prospective owner or user, and of the general public, should be harmonized so far as possible. In most cases, this is not as difficult as it might seem. While the immediate interests of the three parties are not identical, they are not in the long run normally in conflict. It is part of the responsibility of the public, acting through well considered and equitable regulation and law, to remove causes of conflict, and thus to define the rights and duties of the several parties.

8. A plan for dividing land must consider the different requirements of different building districts or zones, not only their immediate use, but also probable subsequent use, administration and maintenance, and must, so far as possible, forecast and provide for the future. This may be done in part by the plan itself, and in part by binding restrictions and conditions, providing for permanency, or, it may anticipate a change or conversion into a different use. Opinions of designers differ as to which is more desirable, a plan that makes change difficult or one that makes change easy. Here again it is a mistake to dogmatize. One thing is clear, however, even from a superficial study of land subdivision in its relation to housing, namely, that the worst results have not been due

usually to the low standard or the lack of fitness of the subdivision for its original purpose, but to its lack of fitness for the purposes to which there was afterwards an attempt to adapt it, or to the lack of public regulation and control, or the low standard which the city permitted to be applied. Here, we believe, public regulation and control would be of great benefit. Examples from almost any city in this country may be cited in support of this statement.

In conclusion, it should be said that there are, of course, technical problems involved in every land subdivision and their solution requires skill and experience. Furthermore, these problems of land subdivision are related to still wider and more difficult technical problems of city planning, city building, city maintenance, and city administration, all requiring still greater skill, knowledge and experience.

Land subdivision, as the term is used by architects, landscape architects and engineers, determines the location and width of streets, roads, alleys, and other open spaces; the definition of building districts; the location, depth and length of blocks; the location of lot lines; the height of buildings; and other physical features. When the subdivision is made upon the initiative of the real estate operator, and sometimes when it is made upon the initiative of public authority, it determines also building lines, restrictions, and conditions of development. Many examples could readily be given of what is done, and how it is done. Thus it would seem that land subdivision, determining so many matters in the physical layout of the city, has a very direct and important effect upon housing, perhaps greater and more permanent than any other single influence.

SUPPLEMENT

SUPPLEMENT TO PAPER
ON
LAND SUBDIVISION AND ITS EFFECT UPON HOUSING
BY
JOHN NOLEN, *Landscape Architect, Cambridge, Mass.*

I. Lot Size

Berkeley	50 ft. x 159 ft.
Boston	50 to 80 ft. x 250 to 300 ft. originally 15 to 25 ft. x 50 to 65 ft. now
Bridgeport	30, 40 to 50 ft. x 100 ft. (few 125 ft.)
Brookline	40 to 60 ft. x 90 to 100 ft. (majority)
Chicago	50 to 80 ft. x 160 to 180 ft. originally 25 to 75 ft. x 125 ft. now
Cleveland	40 to 50 ft. x 100 to 150 ft.
Detroit	50 ft. x 100 to 190 ft. 30 ft. x 100 to 125 ft.
Kansas City	25 ft. x 150 ft., and larger
Louisville	— ft. x 200 ft. at first — ft. x 100 ft. of late
New York	25 ft. x 100 ft. Manhattan, Bronx 20 ft. x 100 ft. Brooklyn, Queens, Richmond
Newark	25 ft. x 100 ft. Few 20 ft. x 100 ft.
Philadelphia	14 to 16 ft. x 45 to 125 ft. mostly 19 to 22 ft. x 75 to 105 ft. few
Syracuse	200 ft. x 200 ft., 33 to 100 ft. x 100 to 200 ft. 140 ft. x 486 ft., 66 ft. x 132 ft., 40 ft. x 120 ft.
Veiller*	46 cities, — ft. x 50 to 200 ft. 25 at more than 125 ft. 9 at more than 150 ft.

*Statements of Mr. Lawrence Veiller, Director of the National Housing Association, based upon returns from 46 cities, presented in full in the Proceedings of the National Conference on City Planning, Philadelphia, May, 1911.

II. *Lot Size Change Tendencies**

Brookline	90-100 ft. large majority 76 special study majority
Chicago	125 ft. standard for depth (for 40 years) 80 and 50 ft. width split 20-30 ft. retained
Louisville	Reducing down to 100 ft. depth
New York	100 ft. standard (no change for over 100 years)
Newark	100 ft. standard
Philadelphia	Deep tending to shallowest possible
Syracuse	128 ft. av. of 11 late additions

III. *Effect of Lot Size on Type of Development*

Berkeley	Lots 150 ft. deep produce rear houses
Brookline	Lots even 70 to 80 ft. (chiefly above 100 ft.) have had rear buildings erected
Chicago	125 ft. depth not economical for poor residential dis- tricts 80 ft. width too large for general use, even 50's split and redivided, 20-30 ft. lots being retained
Kansas City	Good residences use wider than 25 ft., poorer ones use 25 ft. width
Louisville	Deep lots lead to narrow ones with dark houses, and bad shaped stores Narrow lots with rear dwellings are depressed in value
New York	Less than 100 ft. impracticable for lofts, offices, apartments; also gives bad tenements because no open space in center of block. More than 100 ft. gives narrow bad tenement courts
Newark	Lot width tends to determine class of structure. Narrow lots—narrow houses. 100 ft. affords room for rear tenements

* To provide for changes in the depth of lots, it would be practicable to lay out lots for residential purposes at double the normal depth plus the width of an extra street, say 50 ft., placing appropriate restrictions on the use of the property to be occupied later by the street. This would give lots at first, say 225 ft. deep. Later when land became more valuable, the intermediate street could be cut through, and the final lots, 100 ft. in depth, established.

Philadelphia	Single house tendency has dictated lot size, unfortunately. In conversion to business use original lot lines usually followed, although often ignored
Veiller	Most housing troubles due to deep lots

IV. *Effect of Lot and Incidental Building Size on Real Estate Values*

Berkeley	Land values are independent of lot or building class and depend on usability of property
Brookline	Poor occupancy restrains rise in values
Louisville	Building cheap class of houses detrimental to moral health of community. Shallower lots will stabilize values
New York	Land values are independent of lot or building class and depend on usability of property
Philadelphia	Increased frontage has larger effect than depth. Poor occupancy depresses values
Washington	Effect of opening up center of a large block for playground purposes has been to eliminate bad class of population

V. *Effect of Restrictions on Conditions*

Berkeley	Voluntary restriction works well toward increasing values
Bridgeport	Lack of restrictions permitted bad housing conditions to grow
Louisville	Colored problem has dictated restrictions
New York	Lack of restriction as to per cent of lot area covered has been detrimental
Newark	Restricted districts have increased in value, others have not
Philadelphia	Zoning will materially affect problem

VI. *Standard Dimensions*

Berkeley	100 ft. depth used in ideal rearrangement
Chicago	125 ft. depth except in poorer residential sections
New York	100 ft. best for convertibility
Newark	House with proper size and arrangement of rooms should be the basis
Philadelphia	Desires a standard
Veiller	Shallowest possible
	High class residence 125 ft. Middle class residence 50 ft. Poor class residence 25 ft.)

BUILDINGS IN RELATION TO STREET AND SITE

CITY PLANNING QUESTIONNAIRE, MAY, 1911

City and Population	Street Width	Depth of Lot	Depth of Block	Height in Stories
Albany (100,000)	66	125	250 x 660	2 to 3
Atlanta (154,000)	30 to 50	.....	.....	1 to 2, 3
Boston (670,585)	30 to 200	.....	.....	80 ft. limit
Bridgeport (102,294)	C.50 to 60	C.50 to 100	.....	2 to 3
Buffalo (423,715)	50 to 66	100 to 150	220 to 300	2 to 2½
Cambridge (104,000)	50	100	200	2½, 3, 3 to 4
Chicago (2,185,283)	66	125	450	30 ft.
Cincinnati (364,463)	50 to 66	125	400	2, 3, 4
Cleveland (560,000)	50	130	.....	2, 4, 6 to 8
Columbus (181,511)	Old 82.5 New 50 to 60	Old 187.5 New 150 +	Old 187.5	Not above 4
Dayton (116,769)	50	120 to 150	600	2
Denver (213,381)	80	125	400	12 story limit
Detroit (465,766)	50 to 60	100 to 125	250 to 340	2, 2 to 10
Fall River (119,285)	40 +	150	300	3
Grand Rapids (115,000)	66	C.130	C.275	2 to 4
Indianapolis (255,340)	50 to 60	150	365	1½, 2, 3
Jersey City (267,779)	60	100	200 x 400	2 to 4
Kansas City, Mo. (248,381)	C.80	C.130	C.300 x 600	2, 3, 2 to 3
Los Angeles (319,198)	60	150	300	1, 2, 2 and 3, 3 and 4
Louisville (223,928)	60	200	400	1 to 15
Lowell (106,000)	40 to 75	80 to 150	150 to 1000	2½
Memphis (131,000)	C.50	148	320	3 to 6
Milwaukee (350,000)	60	120	300	.....
Nashville (110,000)	50	150	400	1 to 2, 2 to 3
Newark (347,469)	60	100	200	2, 3 to 6, 3 up
New Haven (133,300)	C.50	C.150	400 to 500	2 to 3, 3 3 to 5

BUILDINGS IN RELATION TO STREET AND SITE—*Continued*

CITY PLANNING QUESTIONNAIRE, MAY, 1911

City and Population	Street Width	Depth of Lot	Depth of Block	Height in Stories
New Orleans (339,075)	50	120	300	1 to 3, 2 to 5
New York (4,766,883)	60	100	200	2, 3 and 4, 4 4 to 15
Omaha (125,000)	100	135	300	2, 4, 4
Paterson, N. J. (125,600)	50	100	200	3 to 5
Philadelphia (1,549,000)	1.40 2.70 to 100	40 upward	80 to 250	2 to 4
Pittsburgh (533,905)	40, 50, 60	125	270	2, 3 to 4 3 to 4
Portland, Ore. (207,000)	60 to 80	100	200	1 and 2 dwellings 2 and 3 flats 3 and 4 apartments A few 5
Providence (224,326)	40 to 50	100	200	1 to 3
Richmond (128,000)	C.60	C.130	264 x 365	1 to 10
Rochester (218,149)	60	100 to 140	600	2, 4, 4
San Francisco (416,912)	70	125	250	1 to 3, 2 to 6 2 to 6
Scranton (129,867)	60	160	336	2 to 4
Seattle (150,000)	.....	120	156	.....
Spokane (105,769)	70	142	300	2, 3, 4
St. Louis (700,000)	60	C.130	275 x 600	4 to 10
St. Paul (215,000)	60 to 66	150	300 x 600	2, 3, 3
Syracuse (137,249)	66	132	300	2, 3 to 5
Toledo (200,000)	60 to 100	80 to 130	270	1½, 2 to 4 4 to 8
Washington (331,069)	80 to 90 Sts. 80 to 160 Aves.	50 to 100	300 to 400	85 ft. limit
Worcester (145,986)	50	.....	.....	.....

DISCUSSION

LAND SUBDIVISION AND ITS EFFECT UPON HOUSING

ELMER S. FORBES, Presiding

E. H. BENNETT, *City Planner, Chicago, Ill.*

Mr. Nolen's paper is an admirable general treatment of the subject and covers one way and another the various phases it presents.

It may be well, however, in discussion, to limit the definition of the word subdivision to a far more restricted sense than that covered by city planning. The impression conveyed by the paper may be that land subdivision equals in its scope the more comprehensive city planning, instead of being one of its subheadings.

Let us recognize the actual scope of land subdivision as that given on page 47, eliminating, however, the phrases "open spaces" and "building districts." It would thus read "land subdivision . . . determines the location and width of (minor) streets and alleys, the depth and length of blocks, the location of lot lines," one might even include "the height of buildings and other physical features" together with, as therein stated also "building lines, restrictions and conditions of development." These are, however, considerations of housing law strictly speaking.

The meaning of land subdivision as stated on page 42 cannot well be extended to include the zone system of building districts, parks and so forth.

I say this without desire to quibble over the terms used, but because I believe it is desirable not to spread the discussion over too broad a field and also because it is important to recognize the relation of the various elements of city planning one to another. Taken in its broadest sense, city planning is the housing of a community in its entirety, at work, in recreation, and in repose, and housing in its restricted sense applies to the classes unable to select with any scope at all their place of living. The latter appears to be in the final analysis more largely dependent on housing laws than on city planning. General composition of a city plan must come first. This includes subdivision for all forms of land occupancy.

Were all subdivisional units the same they might govern absolutely the layout of a city; but they are not the same, they vary for each and every kind of building occupancy of land. It may not be too much to say that they should be multiples of the same unit. Generally speaking, however, the units are flexible and fortunately so as some freedom in composition is just as necessary in city planning as in the planning of a building. Even the office buildings of to-day for which has been done much to standardize column spacing, height, etc., vary greatly in their arrangement and structure. If housing in its largest sense is a part of city planning; in its more restricted and necessitous state it is a collateral and I cannot insist too much on the separation of the two in this discussion; believing it is a distinction which Mr. Nolen himself will be only too ready to grant.

The largest field of activity in housing work is undoubtedly in the housing of the restricted kind; the areas for instance to be found in the central develop-

ment of large cities. Observation in Chicago shows that it is within a two-mile limit from the center of the city that the worst conditions exist. Beyond this limit single-family houses exist, and both the front and the back yards of these houses in the average subdivision are not only fairly clean and well kept but are made attractive by their planting.

There are many important phases of land subdivision; of first importance is transportation. Transportation controls to a great extent housing in its largest sense, that is to say, of general residence. This subject has been ably treated by Mr. A. W. Crawford at a Conference of this Association.

Mr. Henry C. Wright also has analyzed the possibility of distribution of the population. To some his will be an idle dream that municipalities will organize, finance or operate car lines in a comprehensive way. They may take over the lines once built and correlate them for the city's good, but the building up of such lines must in all probability be competitive and on the basis of profit. The main point is that competitive areas must be developed, however, in a city in order to give the home seeker a fair chance. This is housing on the broader scale.

I would like to suggest that the means for bringing into existence competitive areas might be such as are used in some countries abroad where the building up of subdivisions is limited to areas in which the streets are paved and sewer, gas and other facilities installed, the latter all being installed by the municipality.

Mr. Nolen gives some very good reasons why land subdivision and housing has not been given more attention by city planners in this country, that is, in recent years. Up to ten years ago almost exclusive attention

had been given land subdivision to the entire neglect of the major considerations of city planning; the chief of these being an arterial system. If subdivisions have been neglected in city plans made in recent years, it is largely for this reason; also for the fundamental reason that it is an element of general composition.

General considerations must come first. For instance, the location and trend of industrial districts is a vital consideration in the whole. Its uncontrolled development not only will, but already has in most large cities of this country reduced much land fit for decent residence to practically slum conditions. In only one form, perhaps, would land subdivision have controlled such invasion of property, not only controlled but eliminated the necessary growth, and that is the one of parallel streets twenty-five to thirty feet apart for instance, wisely suggested by Mr. Veiller for special areas. Owing to the smallness of such an unit, no industrial and little business could be developed and such a system would therefore be entirely unsuited to the needs of general expansion of a city. Clearly it could not be applied over all. It must therefore be applied, or any other system controlling housing must be applied, according to the dictates of a general plan.

I do not argue from this that there should be ignorance of housing necessities or of the needs of any other occupancy of land. On the contrary, good general planning must be based on a real knowledge of the nature of the elements involved. Such knowledge can perhaps be best obtained, in addition to experience, by the discussions of such conferences as this, and is, I think, an additional argument and reason for limiting land subdivision to its rightful sphere.

In large cities, concentration must continue to exist. It need not be congestion, as Mr. Veiller pointed out years ago, nor do we need to discuss whether we shall try to influence our people necessarily from living in tenements. The genius of the people is already fairly well expressed. It stands demonstrated that the individual home is the common choice of the mass of people. There exists a class, dwelling in tenements and apparently preferring to dwell in them. It is for such people that the laws must be enacted and in whom we must seek to implant the desire to maintain and obey those laws. This may be done by example or the suggestion of well-kept streets both in paving and planting and the education of the public at the local centers or playground parks. There should be cultivated a sense of competition in cleanliness and attractiveness among the people and a desire for better things.

Where concentration is found necessary, it is the duty of the city, in accordance with a city plan, to allot such spaces as are necessary for public recreation, and not only for recreation, but spaces as will develop in the minds of those of the population who are forced to live in tenement conditions the idea of community possessions and also responsibilities. Reasonable concentration plus ample playground space and open breathing spaces is in all probability the wisest aim in subdividing for the poorest classes.

By the exercise of laws and by gradual education of example one may teach them the value of economy of space and the advantages of a greater freedom in sharing the common land and common advantages instead of the more doubtful advantages of the individual possession, as illustrated by the hideous back yards so common in our cities. An interesting reflection on this

subject are the statements made by Elmer S. Forbes in his paper on "Rural and Suburban Housing." Slum conditions are to be found in the country where land is almost worthless as well as in the city where excessive ground values pertain. This emphasizes the necessity for a housing law and its enforcement.

An interesting section of Mr. Nolen's paper is that in which it is shown that the developers of subdivisions are most often actuated by considerations of profit; this is natural and just. The question, however, as to whether land is different from other things bought and sold should I think be answered in the affirmative, not only for the reasons given but because its values are made so largely by the growth of population—unearned increment.

The developers of land have certainly an obligation to the public in its layout. If this occupancy is to burden adjacent areas by congestion of population or render necessary the acquisition of playground spaces for the accommodation and welfare of the subdivision so developed and congested, then by one means or another the land should be taxed to meet this situation.

I have already referred to the deterioration of property by the invasion of residential districts by industry. Industrial development so largely follows railroads that their ungoverned distribution of rights-of-way are largely responsible for this invasion.

Study of the growth of cities has shown that, where many railroads radiate from the city in different directions, the triangular shaped areas lying between them for a considerable distance out from the center of the city are reduced to a low level of utility, even though they may have comparatively high value in the real estate market. This leads to the use of this property

in an intensive and wretched manner and it is in these pockets that we find the worst tenements and slums. If the railroads are properly placed a minimum of property will be reduced to this condition, still allowing sufficient room for zones of industry. Here we have the question of land values, in part, and in part bad subdivision; the evil effects of both, however, controllable by proper housing regulation under present conditions or under more ideal conditions of districting or zoning plans referred to in Mr. Nolen's paper.

Mr. Nolen, makes a vital statement and I believe as he says that the worst results are due to the lack of fitness of subdivisions for the purposes to which the attempt is made to adapt them or to the lack of public regulation and control. Under the proper powers streets may be added or closed as the need arises.

It is of local interest that Minneapolis standard blocks are 330 by 660. Mr. Crawford has suggested a future subdivision where necessary by means of a fifty-foot street running lengthwise of the blocks. This would be an instance of street additions.

The evolution of cities is constant. It is necessary sometimes in city planning, especially near the heart of a city, to lay out blocks and street widths compatible with the needs of the future business development; such a layout may not be the best suited to housing or residential purposes, and certain proportions of the lots must lie fallow pending the full development of the city. Such a situation again must be taken care of by the enforcement of the proper ordinances and laws; in the average American city such a condition actually exists.

Here it may be well to speak a word of hope for the future of American cities. If contrasted with Euro-

pean cities of the same size, almost any American city will show practically double the platted area within its city limits. The area not given up to street surface or actually under roof is potentially a garden space. So also is a portion of the actual street widths now unwisely paved, and it is fair to say that not only are they potentially so but to some extent actually so.

Let us suppose the principle of parking applied on the streets; let us suppose all the fences of individual back yards eliminated and the property, both common and individual, treated in harmony and with respect one to the other, properly planted and beautifully developed in every way, and I venture to say that a garden city will be the result that would not only equal but out-do anything to be found anywhere else in the world.

The purpose of my comments summed up is to show that land subdivision is of great importance in its general bearing and influence on the type of occupancy of the land although not necessarily compelling, but I believe that the problem of housing in its commonly accepted sense is not one of actual subdivision of property. Abnormal block dimensions are undoubtedly a temptation to congested occupancy, but they are not the greatest danger. Congestion will result under the pressure of circumstances where there are no laws or application of the laws. It may be replaced by reasonable concentration or even more ideal conditions by the application of such laws as are outlined in Mr. Veiller's very excellent Model Housing Law.

LEE J. NINDE, *Real Estate, Ft. Wayne, Ind.:*

As this subject is almost as broad as the subject of city planning, we are fortunate in having so able a

city planner as Mr. Nolen to analyze and present to us the many aspects of the question of land subdivision and its effect upon housing. His experience has been along broad lines, touching upon every phase of subdivision work and city planning. He has been brought into contact with so many instances of well and ill doing that he can speak with much authority, even though the subject at present is clouded in uncertainty and needs much investigation.

Mr. Nolen represents the professional and humanitarian side of the subject. I come here representing the viewpoint of the real estate operator, the man to whom it is important, no matter how high his ideals nor benevolent his intentions, to make money out of the subdivision that he puts on the market. A theoretical success and a practical failure only expose a man to derision and ruin. It is our duty, as real estate men, to get the maximum virtues into a subdivision, while at the same time producing a reasonable profit.

As Mr. Nolen has done, I am merely discussing this subject in reference to residential subdivisions. Lot sizes undoubtedly have a great influence upon future housing, but an equal part is played in producing results by providing careful restrictions and a proper type of development. Roland Park in Baltimore and Forest Hills Gardens in New York both present the advantages to be obtained from building up certain portions of the tract and starting the development along the proper lines. In every city can be seen the effect of a subdivision that is promoted with a careless and selfish disregard of the future. The difficulty at the bottom of the question is that the subdivision operator many times has only the one subdivision in hand. There are very few men who undertake the

dividing of residential property as a business. The evil consequence of this is the same carelessness of the future as is exhibited by the transient plumber or itinerant peddler. They are only interested in unloading their goods regardless of the interests of the buyer, eager merely to squeeze the last cent of profit out of the transaction and, after making a quick and profitable cleanup, to turn away and hunt up the next deal which they can put over in the same manner.

I am dealing with the broader aspects of the subject because, in order to produce good results with our future subdivisions, we must reach the man behind the subdivision. It is the duty of this organization and the City Planning Conference to obtain and classify the information showing the evil effects from bad planning. Real estate men, in the hurry of their business, are not very theoretical but they grasp quickly the ideas that the professional men work out and see almost at a glance the place where the profit line can be drawn. Real estate men are not malicious. They are not even careless in their methods, but, as Mr. Nolen has said, this subject is just emerging from the mists of speculation and it is not surprising that, if the city planners themselves are merely beginning to see certain contour lines of importance, the real estate men, who have had no professional training and no interests, as a general rule, in the subject of city planning or housing, should have failed up to the present time to foresee the widespread evils that poorly planned subdivisions would visit upon a community.

The detail of this subject has been so thoroughly discussed by Mr. Nolen and the importance of gathering and classifying all the information upon the subject has been shown so clearly, that I wish to touch lightly upon the profitable results which have flowed within

my personal experience from a properly planned subdivision. A success from the standpoint of profit is the best possible proof of a theory to a practical real estate subdivider.

Lafayette Place was a subdivision of seventy-five acres in which I was recently interested, in which was incorporated many of the ideas advocated by the professional city planners. In fact, the plans were drawn by a well-known landscape architect. It illustrates the importance of restrictions in producing values while at the same time insuring proper housing on the lots in the subdivision.

In addition to restrictions against liquor, against the building of apartment houses, garages, livery stables, etc., there were even restrictions against fences around the front yard and against anything but wire fences of a limited height in the back yards. Across the street from this addition were lots that had been platted a year ago and were for sale for \$250 to \$300. Our lots were priced at \$500. A lifelong resident of the neighborhood, a conservative farmer, bought two of our lots at the higher price. He gave as his reason for so doing, the fact that, when he built his home to live in the rest of his life, he wanted to be sure of the type of building that would be put up near him. He did not give up his hard earned cash for any reason but the security of neighborhood.

The very same restrictions that made the lots of higher value guarantee the housing conditions in a subdivision for many years, perhaps for all time to come. It is our intention to build on this subdivision certain typical residences for the purpose of setting an example to the purchasers of the type of building that should be followed. In other developments that I have seen, these two factors have entered more

largely into the housing conditions of the neighborhood than even the size or depth of the lot. There are not very many communities in which a lot less than twenty-five feet wide nor even less than forty feet wide is the rule. The real estate operators for their own benefit gravitate toward the forty-foot lot.

It is a matter of surprise to those of us who have become interested in the civic and housing side of subdivision development how little interest at present and how little knowledge the average real estate man has of city planning, but it is also quite interesting to see how quickly he wakes up to the ethical side of the subject as well as its utilitarian benefits to himself. As I have suggested a number of times to men who are engaged in professional city planning, a campaign of education among real estate men is necessary, as they have more to do with our civic conditions than any other class. They should be the first mark aimed at. The practical ideas acquired by city planners can be furnished to the real estate operators and can be demonstrated by such methods as the city planning exhibition and talks before real estate conventions. Those of you who are interested here should seek to carry the light of your great ideas into the midst of those men who are engaged for their life work in the practical development of our cities.

This National Housing Association is an educational institution of the highest order. It is for the purpose of bringing together the best ideas from every quarter of the country. After threshing the grain from the chaff, it should take the best ideas and disseminate them by every means over the fields where they will best take root. The real estate fraternity is a rich field for this purpose and I invite your co-operation in bringing home to them as rapidly as possible the ideas that have been expressed here in this Convention.

THE CAUSES OF BAD HOUSING

ELMER S. FORBES

*Chairman of the Housing Committee, Massachusetts Civic League,
Boston, Mass.*

IN view of the extent of bad housing and of the profound influence it is known to have upon the lives and characters of those who must submit to it, we do well to study carefully its causes. Why do we have this world-wide problem, what are the forces which have combined to produce the slums, why are they still developing before our very eyes? This is a fundamental inquiry, and upon the answer to it depends any intelligent effort to cure the ills we have and to prevent their further development in the future.

The causes of bad housing are many and vary somewhat in different countries and localities. Having in mind in all that follows the older settled parts of the United States, I should say that in rural districts and in small villages ignorance or disregard of the common principles of sanitation account for most of the bad conditions not directly traceable to personal character. Dry, well-lighted and ventilated cellars, properly constructed privies and cesspools rightly located with reference to the well, if that happens to be the source of the family water supply, and more attention paid to the better arrangement and greater cleanliness of the stable and barn are probably all that is necessary to make three quarters, and perhaps a larger percentage, of the farmhouses and the dwellings in the little country hamlets reasonably healthful.

In the larger towns and in the cities more factors enter into the problem, some of greater importance

than others but none are of so little consequence that it is safe to overlook them. Here again, one of the most common is defective sanitation, and especially the persistence of village sanitary conveniences long after the village has become a town and even a city. The open privy and the cesspool may be necessary in small communities where there are no sewers, but as usually constructed they are dangerous anywhere and in the cities are a grave menace to the public health. Yet there are numbers of cities where the primitive outhouse still remains as a legacy from the days of the pioneers. The health officer of a flourishing city of 100,000 population said to me, "We have 7000 privies in this town and 3000 wells, and when the two get together the board of health has its work cut out for it."

These outhouses are often filthy beyond description and the sickening odors from them pollute the stagnant air of the neighboring tenements. In the absence of a complete sewerage system, the outdoor privy is admittedly a difficult problem to handle; nevertheless something must be done with it, for without the proper disposal of household and bodily waste there is no safety for the public health and good housing is impossible.

Another factor in the question to be considered, especially in its relation to overcrowding, is the character of the recent immigration. The earlier immigrants in great part went on to the land and to-day their descendants form the backbone of some of the finest agricultural states in the Union; but the later comers, from southern and southeastern Europe and from Asia, have settled largely in the cities. They are economically weak and as a rule their standards of living are much below the average in this country.

Partly from necessity and partly from inclination they pack themselves into the tenement houses of the cities, the mill dwellings of the manufacturing towns, and the shacks of the mining camps until they produce a congestion of humanity which seems scarcely possible. Housing investigations all over the United States are full of the details of an overcrowding which almost stagger the imagination. The report of the Immigration Commission of Massachusetts mentions fifteen people living in two rooms; the health department of a middle western city reported several houses of eight rooms occupied by an average of sixty human beings each. East and West, wherever the hordes of the near Orient are found, the story is the same; and this manner of life has a disastrous effect upon housing. A dwelling may be admirable for a family of reasonable size, but cram into it from three to ten times the number of people for which it was intended and it becomes a plague spot in the community. It destroys privacy, relaxes morals and breaks down physical health. The situation calls for drastic treatment, for right living and human congestion are utterly incompatible.

Village sanitation carried forward into city life, and overcrowding, are two very common causes of bad living conditions, but there are others much more potent. One is the rise in land values. As a community grows its land becomes more valuable. In order to get an adequate return on the capital nominally or actually invested, or to secure the utmost possible profit, owners cover an increasing proportion of their lots with buildings. The generous open spaces around the dwellings of the former village and town diminish in size and finally disappear; the yard in the rear, so important for lighting and ventilating the interior

of the block, becomes smaller and smaller; at last every available foot of land is occupied. Many lots in the older cities are entirely covered with buildings, and even where this is not the case the tenements are so deep that the effect is the same, viz., to develop the dark inner room without windows and with no direct communication with the outer air. In the earlier types of tenement house the front room had windows opening on the street, the rear room overlooked the yard, and between the two were anywhere from one to three bedrooms into which the light of day never penetrated and where the air was always stagnant and foul. Many two-family and even one-family houses have been built on this same plan, and this only emphasizes the fact which at last we are beginning to realize, that bad housing is not alone found in the slums but also in the homes of the comparatively well-to-do. It is easier and cheaper to build without reference to light and ventilation; and where rising land values call for larger returns from the same area, either by an increase in the number of rentable apartments or by raising rents or both, unregulated building is almost certain to be of this type.

Land speculation contributes to the same end. Where a community is growing fast a larger profit can be made by holding land for a rise than by building. Desirable land will be kept out of use; this will increase the demand for dwellings, rents will go up, the overcrowding will become more dense and such building as there is will tend to be of the cheapest and most objectionable character. For instance, between 1870 and 1890 the land upon which is built the city of Berlin, Germany, increased in value \$867,000,000. Official reports show that 73 per cent of the population

are living in apartments of only one and two rooms. Six hundred thousand people are living in a congestion of five or more to the room. In the nine years from 1886 to 1895, rents increased 36.7 per cent, while the number of houses increased by only 24.8 per cent. This is a constant experience the world over, varying in details. The fact is, the housing problem is very largely a land problem. Cheap land, and, I ought to add, cheap credit are prime necessities for any satisfactory solution of the question. Germany quickly saw that the housing business cannot be left to unrestricted private enterprise and took measures to control it in the interest of all the people. German cities have gone into real estate operations in a way that has never been dreamed of in the United States. Among them they have bought thousands of acres of land, in many cases all that is available. Some of it they have sold for railway and other public uses at a handsome profit, which otherwise would have gone into the pockets of private landowners, and some of it they have cut up into house lots which they have sold to their own citizens at cost on most favorable terms. They have also loaned money at $3\frac{1}{2}$ per cent with which to build houses.

Furthermore, they have grappled successfully with the problem of transportation which has such a marked influence upon the course of land values. The cheap land, which is the prime necessity for inexpensive dwellings, is generally to be found only on the outskirts of towns and cities, often at too great a distance to permit people to walk to and from their work. Without convenient transportation facilities, it is not available. In the United States these facilities are usually not supplied soon enough nor on a sufficiently extensive

scale to bring much land into the market at very low prices; and in this lack is found one great reason for the land congestion so characteristic of slum districts. The German towns have handled this whole question with remarkable success and as a result they have practically stamped out real estate speculation, they have freed themselves from the grip of the land jobber, they have made the future development of slums impossible. What an immense gain this means for healthful living everyone knows who has walked about the cities, say, of Ulm and Frankfort and Düsseldorf, and has seen the clean, light, sanitary and cheerful homes of the working people. The lesson here for us is that while uncontrolled speculation in land is almost certain to produce wretched living conditions, the price of land can be controlled for the benefit of all the citizens. We may think the German method of doing it is not adapted to the conditions of American municipal life, but in that case we must find some other way of producing the same result.

What we have just said points in our own case to a cause of bad housing which lies back of land-jobbery, viz., the freedom of landowners and builders to do as they like with their own without regard for the health or welfare of either the tenant or the public. Until quite recently, except in a few of the largest cities, we have had no housing law, nothing which would protect or promote the health and efficiency of tenants, and even to-day there is no law so far as I know which enables a community to protect itself against the evils of land speculation.

Now it is perfectly true that no law can cure all the ills the body politic is heir to; it is equally true also, no doubt, that a good deal can be done by indirection

to solve the problem of bad housing, but I am convinced that nothing will be so efficient at the present time and do so much to prevent trouble in the future as a well framed housing law with power enough in it to make it respected. I sympathize with every attempt to secure for the community the land values which the community itself creates. I should like to see a more reasonable and scientific method of raising public revenue by taxation, but unless there is a strong housing law on the statute books there will be great danger that any effort in these directions will tend at first to increase the evils of bad housing. In the absence of such a law the moment a heavier burden is laid upon land the rush to cover every available inch with income producing buildings will be greater than it is now. It matters not that time might correct the evil; the correction would come too late to prevent the erection of a vast amount of unsanitary and unsafe housing, probably of the most flimsy and dangerous type of construction.

Here, then, it would seem is the point of immediate attack upon the housing problem, here where the public interest has so little protection. We have plumbing regulations and building codes designed to secure the proper mechanical construction of dwellings, but hitherto almost no attention has been paid to regulations to safeguard the health and welfare of their occupants. Jacob Riis once said that you have no more moral right to kill a man with a house than you have to kill him with an axe; but all over this country men and women and children are being slowly killed by inches because they are compelled to live in gloomy, airless dwellings, poisoned by the effluvia from rotten yards and filthy sanitary conveniences, degraded

in morals, ruined in health, and with the ever present danger before their eyes, if they could only see it, of death by smoke or fire. Here and there an effort has been made to put up the barrier of law against bad housing. A number of cities have passed ordinances, Indiana, New Jersey, Connecticut and Massachusetts have state laws more or less general in application, but this is only a beginning. The manufacture of bad living conditions will go on until the time shall come when in every corner of the land a strong and even law prevails which will stay the hand of the ignorant house owner, the avaricious landlord, the land jobber and the jerry builder and prevent the exploitation of those of our citizens who are least able to protect themselves.

In this discussion of the relation between law, or rather the lack of law and bad housing, we ought not to overlook the part played by the inefficient enforcement of such law as we happen to have. Law cannot be enforced without hurting someone, and local building inspectors and boards of health sometimes do not like to inconvenience their friends. Frequently, too, these positions are given as political rewards and then it is extremely unwise for the recipient of such favors to be too conscientious in enforcing troublesome ordinances. Under such circumstances everyone knows how difficult it is to get anything done, and for how little public welfare counts in comparison with private interest.

And this suggests the last and most fundamental causes of bad housing. Primitive sanitation and the presence of people having low standards of living count for much; an unjust system of taxation, the rise in land values, speculation in land and jerry building are highly important factors; the deficiencies of the

law and shortcomings in the enforcement of the law that we have are responsible for an appalling amount of wretchedness and misery; but back of all these is the conservatism of the courts, public ignorance and indifference respecting the effects of bad housing measured in terms of health and efficiency, and finally our extreme individualism as a people which resents any interference with what are regarded as private rights. Any discussion of the attitude of the courts would carry us too far afield. No one supposes for a moment that they wish to encourage bad living conditions, but legal or constitutional objections are apt to be raised against measures for the public welfare because of their effect upon private property rights to an extent which we may believe will diminish as the general sentiment on these matters changes. The courts in their decisions do not so much anticipate public opinion as they follow it, and when opinion is clear and unmistakable on these matters no doubt the courts will find a way to sustain it.

But the greatest obstacle to the immediate and rapid brushing away of all that is making for bad housing in this country is the indifference and the antagonism of the public at large. The indifference is the result of ignorance. The great masses of the people do not understand, for example, that the cesspool ought not to be near the well, indeed, if the digging is easy that would seem to be a very good place to put it. To many it is foolishness to require a large yard behind the house, and a window to the outer air in every room, and such restrictions on the height of dwellings as will allow the sun to shine into the rooms of the neighbors, and decent sanitation and all the rest of it, and therefore we do not often get the regulations we ought

to have. In countries where the initiative comes from the best informed it makes no difference whether the rank and file understand the value of these things or not, they are established all the same. In a democracy like ours they cannot be secured until public opinion is ready for them. Furthermore, we are individualists, we do not relish having anyone tell us what we may or may not do, especially if it concerns our own property. In a New England town meeting I heard a man ask angrily, "Why should anyone tell me how I am to build my house?" and he was no speculator, either, but a hard-headed, self-reliant working man.

In the last analysis the causes of bad housing are general ignorance of the importance of the subject and a feeling that any regulation is an invasion of private rights, together with a sinister indifference to the public welfare on the part of some of those who well know better. But knowledge of the causes of evil living conditions is equally knowledge of the remedy. Give us education, give us an extension of the principle that no man shall endanger the lives of his tenants or his neighbors, give us law, and the influences which to-day are striking at the happiness and the welfare of so many of our people will be robbed of their power forever.

DISCUSSION

THE CAUSES OF BAD HOUSING

LEE J. NINDE, Presiding

CHARLES C. STILLMAN, *General Secretary, United Charities, St. Paul:*

Mr. Forbes, in enumerating the causes of bad housing, has gone into small village and big city, has taken a trip around the world, penetrating even into the war zone, has looked sociology and economics in the face, and has dug his hook into all the "causes" known to man.

He wisely begins with ignorance as a cause, and with ignorance he with wisdom concludes.

In order to relieve my mind of any unconscious bias of the social worker in considering this question, I addressed several letters in the latter part of August to some well-known real estate men of St. Paul, asking them to enumerate a few of the causes of bad housing as appearing to them in their experience with realty. The replies are very courteous and interesting and valuable.

One prominent man writes: "You will fail to solve the housing problem until you educate the tenants to refuse to rent a home at any price unless it is safe and sanitary"—ignorance, you see: Mr. Forbes vindicated.

I replied: "Granting the need of education of tenants, have we not a right to expect better results

by beginning at the other end and educating the owners, agents, and trustees to keep property in livable condition, and have we not the right to suppose that many of this class of people, generally speaking, are more educable?"—ignorance again: agreement with one Forbes.

Another dealer in realty cites as a cause: "Ignorance of builders as regards sanitary arrangements," etc. (pointing out in connection the lack of law and the laxity of law enforcement as making such ignorance dangerous).

I addressed letters to clergymen supposedly interested in social problems. Most of them did not reply (Query: Was this ignorance?). Those who did reply showed that the subject had received their close attention and was vital with them. One well-known minister gives as his second cause: "Misdirected charity" (and he is not an advocate of the single tax, either). He recites a particular case: "An elderly lady for some time in poor health was receiving rent from the Blank charity. She was living in the worst sort of a building located in back of a grocery store. The sanitary condition in the summer time was well nigh unbearable. Instead of paying rent for this ramshackle dump, it seems to me" (he writes) "that the Blank charity" ("Blank," as used here, is not an euphemism for inelegant but easily understood adjectives which sometimes garnish mere secular writings—I am jealous of the reputation of this reverend gentleman) "should have instituted proceedings against the landlord." *Social workers'* ignorance, if you please. And I believe the point is very well taken.

The indifference of Mr. Average Man to bad housing is principally due to his ignorance of the existence of

such in his own community, or to his ignorance of the components of bad housing. Who is responsible for that lack of knowledge? I answer twice. First, The welfare organizations who meet the conditions and by silence fail to make them known. Second, Public authorities whose bounden duty it is to loose the light and apply the remedy.

To hammer away at relief of pernicious conditions in housing is the evident duty of all the 57 varieties of social service organizations. If the tubercle bacillus dies for shame when the sunlight streams in, our anti-tuberculosis committees have their course mapped out for them. If sickness is a proportionately great cause of poverty, and if wells in danger of pollution and the storage of fecal matter in back yards are contributory causes of disease, and if charity organization societies are interested in organizing community forces to fight poverty, then it requires no talented logician to formulate an unassailable syllogism indicating the business of such an organization in a given place. The occupancy of one room (no partitions) by a man with three sons and two daughters as happened near the Twin cities recently, seems sufficient challenge to a public morals committee to interest itself in the housing problem.

The possibilities of propaganda in this field are so well illustrated by our own National Housing Association that information about this movement is the only tonic needed for lackadaisical social workers and organizations.

There is lack of appreciation by our city governments of the vast possibilities and the great value of education of the general public in the social features of the housing question. It is the rule that sanitary inspectors of

our boards of health visit premises only, and officially know nothing of the interior of houses used for dwelling purposes. Legislation is changing this in an increasing number of cities, but the lack is yet appalling. Recently in a city of a quarter million, a welfare organization reported some vicious conditions; waited, reported again; waited, reported again; waited, reported again. After a while, the owner of the property good-naturedly went to the secretary of that organization, and asked him if he was the board of health. The local board had practically apologized to him for compelling action, stating that the organization in question was making such a howl that something would have to be done. There was no politics in the question; it was merely the inertia of long custom. With such inaction on the part of public officials, it is understandable why the public at large fails to sense the need. A civil service health inspector in a Missouri city once said to me: "If we don't have slums, where are the poor going to live?"

Another series of causes advanced by Mr. Forbes is comprehended in the reach for the dollar. Reverting to my series of letters, I find one of my clerical friends giving for cause No. 1, "the greed of the landlord." One of my real estate friends gives as cause No. 1, "the desire of the owner, agent, or trustee to secure the greatest net rent from the investment." The church and the world agree.

A folder circulated by the Model Homes Building Company of Evansville, Ind., has this to say of that city: "Here many families are forced to live in one or two rooms, paying rents that are as high per room as they should pay for sanitary houses upon good streets. These rents bring *20 to 50 per cent* to the landlords."

A recent study by the Board of Public Welfare of Kansas City shows 16.2 per cent of 315 single and multiple dwellings earned 8 per cent and upwards, net, on the investment. In a city other than where I live now, a lawyer who invested much money in dwellings of the multiple type told me that 6 per cent in renting houses was philanthropy. For him 15 per cent was a fair net return. We all admit that exploitation is responsible for at least some bad housing.

Who is responsible for this exploitation? There are, of course, smug individuals, a small proportion, in every community who are very willing to live and let die, so long as profits are regular. There are cross-section humanitarians who, by mistake of the well-meaning but fallible stork, were deposited on the top social shelf or near there, and who insist that the lower strata don't know any better, don't want any better, and the Lord knows never will be any better.

Mr. Veiller struck the hardest blow in the interests of good housing when he wrote in the second chapter of his book, "Housing Reform": "To properly understand the housing problem it is necessary for many of us to free our minds from a number of misconceptions . . . chief among which is the belief that the poor are a different race from the rich; that they have not the same impulses, the same vices, the same frailties, the same virtues" (Housing Reform, Veiller, page 15). I actually have had the old coal and bathtub argument, eloquently elaborated, thrown at me twice in the past five weeks, and both the throwers of the ancient missile were courteous gentlemen, college-bred men, eminently respected, and highly successful. This attitude of mind on the part of these sincere men is symptomatic of a prevailing lack of faith in our

fellows. I believe it has ramifications and has to be reckoned with in considering causes of bad housing.

Mr. Forbes confesses that the housing problem is essentially a land problem. With him, I "sympathize with every attempt to secure for the community the land values which the community itself creates." More than that I see in that movement the greatest single factor for the solution of the housing problem. I subscribe to no panacea, however, and always suspect any social cure-all.

The well-framed housing law with power enough in it to make it respected is indeed the present, efficient remedy. Legislation and reasonable enforcement must be toned up by education, of course. Mr. Bennett this afternoon, in re tenement dwellers: "In them we must implant a desire to maintain and obey such law." Mr. Ninde: "I take it land-subdivision is largely educational at bottom." The concluding paragraph in a letter from a real estate dealer (to these gentlemen I am indebted for my paper), is this: "We believe that the offering by the owners and the acceptance by the people, of existing conditions, can only be corrected by the people." With ignorance we began; with education we conclude.

EFFECTS OF BAD HOUSING

JOHN J. MURPHY

Commissioner of the Tenement House Department, New York City

DURING his campaign for the Presidency, the late Benjamin Harrison uttered an epigram which made him the target of much criticism. He said: "A cheap coat makes a cheap man," and this statement, which was intended to epitomize his views on the protective tariff, was twisted into meaning that people whose clothes were cheap were purchasable. This was not true, and it would be no more true that bad housing makes bad citizens under all circumstances, but, next to an inadequate and unwholesome food supply, poor housing stands as the most deleterious element in our civic life. Sanitary research shows how important is the reaction of adequate light and ventilation on the health, stamina and moral character of individuals. Bad housing furnishes the fruitful nurseries of disease germs of all kinds, while at the same time creating conditions which prevent the building up of resistance to their inroads.

There can be no question that the three great scourges of mankind, disease, poverty and crime, are in a large measure due to bad housing, in its broadest sense. Intemperance in many of its most repugnant forms may be traced to the fact that so many citizens are obliged to live in homes in which they can take neither pride nor comfort, and which make the saloon seem more desirable by contrast.

Bad housing is especially detrimental in its consequences to the children reared under its influences. In many cases the evil influences of environment can never be eradicated. The need for the erection of institutions for the blind and hospitals for the child victims of tuberculosis, spinal meningitis, and other diseases of like character, is greatly intensified by bad home conditions. The employee living in a house inadequately lighted and ventilated is unable to perform his task with proper energy and intelligence; women compelled to live in such houses develop tendencies to irritability, which frequently leads to family disruption.

Bad housing tends to increase the tax burden of a community by requiring larger expenditures for remedial service, which might otherwise be eliminated.

The lack of proper cleanliness and decency in the exterior and interior of houses tends to reduce the self-respect of the occupants. Note how eagerly the family which has even slightly improved its financial standing seeks buildings with more attractive exteriors and better decorated rooms. It will also be found that as families descend in the social scale one of the pangs most keenly felt is the necessity for the occupancy of quarters in buildings whose general appearance indicates that they are occupied by the miserably poor.

It may be said, therefore, that there is no plane of human existence in society which the housing question does not touch. There is no form of vice, crime, debility or shiftlessness which bad housing does not tend to nurture. "Keeping up appearances" is often decried and deserves much of the reproach cast upon it when it simply means unwarranted extravagance

to maintain a position which one's income does not justify, but among the poor it is an ever present aid to the maintenance of self-respect and is to be encouraged rather than decried.

The Land Inquiry Committee of the House of Commons handed in a report in 1914, which has been printed under the general title of "The Land—The Report of the Land Inquiry Committee—Urban," of which several divisions are devoted to an exposition of the "Effects of Bad Housing." I found this was so valuable for my own purpose, that I do not think I can do better on this subject than to quote largely from its findings:

"In assessing the effect of bad housing, or, in other words, in studying one aspect of the influence of environment upon physique, there are factors to consider which do not at first sight reveal themselves, since the matter must be considered from a biological point of view. Though every year medical knowledge is growing, both in amount and in accuracy, the nature of disease is only partly known. Broadly speaking, it may be said that disease is divisible into two great groups—that which is infective or caused by germs, and that which is non-infective. Non-infective disease is produced by conditions present from birth—malformations, strain, accidents, wrong feeding, unhealthy habits, exposure, premature old age, and so forth. An undue burden is placed upon the organs of the body, with the result that they are prevented from performing their normal function; and this leads to disease, which may affect the brain, lungs, heart, digestive system, kidneys, or other parts of the body. Much of this kind of disease is due directly or indirectly to a man's surroundings, which contribute so largely

to his habits of life and work. On the other hand, infective disease is produced by seeds of disease sown in a favorable soil; in other words, there is an infective agent or germ, and there is the person infected. This is the cause of fevers, measles, diphtheria, and what is commonly thought of as epidemic disease, that is, disease which is spread by contact or by infected air, milk, water, food and other substance. Upon this kind of disease, also, it is obvious that environment exerts a potent influence. Impure air, polluted water, contaminated food, infected milk, contact with infected persons, or even personal uncleanness, may thus bring about infective disease.

“Whatever form disease takes in the human body, it must have a favorable soil or a susceptible person. If seed fall upon stony ground we do not expect fruit. If a healthy and resistant body is subject to strain or infection we do not expect disease. Bacteria and bad habits, strain and exposure, are primary causes only, for disease depends not upon their occurrence so much as upon the positive or negative effect which they exert on the body. All men are liable to them; as a rule, only men with depressed vitality fall a prey to them. What, then, are the causes of depressed vitality? Briefly, they are four:

“(1) Predisposition and heredity.

“(2) Antecedent disease, or fatigue, or being ‘below par.’

“(3) Personal habits.

“(4) Conditions of environment (e.g., insanitation).

“This is not the place to discuss any of these conditions except the last, but they must all be remembered in forming an opinion as to the effect of insanitation upon health. They are not mutually exclusive, they

overlap at many points. A water-tight compartment classification is impossible.

“As we have already seen, insanitation spells confined space, bad air (i.e., air which is insufficient in quantity, lacking movement, of high temperature, moist, deprived of fresh oxygen, malodorous, or perhaps actually poisonous), lack of sunlight, dampness, bad drainage, uncleanness, and overcrowding; and these conditions either exert an unfavorable influence upon the persons subjected to them or afford the occasion for direct infection. Speaking generally, it is customary to classify the physical conditions resulting from insanitation as follows:

- (1) Diminished personal cleanliness and hygiene, leading to ‘debility,’ lassitude, fatigue, unfitness, diminished powers of resistance to disease, etc.
- (2) An increased mortality—both infant mortality and general death-rate.
- (3) An increase in certain causes of death, viz.:
 - (a) Common infectious diseases.
 - (b) Diarrhœa.
 - (c) Pneumonia, bronchitis, and other lung disease (excluding phthisis).
 - (d) Tuberculosis, particularly phthisis.
 - (e) Infantile diseases—premature birth, atrophy, marasmus, convulsions, etc.”

In another place the report reads as follows:

“We must bear in mind that, with the majority of men and women, a lower vitality means not only physical but moral limitations. Again, it is not merely the outcome of conditions which are directly injurious, such as overcrowding or lack of light. It may be the net result of a number of minor causes. The power of resistance, whether physical or moral, of many of our

workers, is being steadily sapped, not by any outstanding hardship, but by the cumulative effect of countless small discomforts. Their surroundings are too dismal to give them either pleasure or relief. The laws of nature often work slowly, and often bring about results that are unlooked for—but they work on with deadly certainty.

“If the natural human craving for comfort and relaxation cannot be satisfied at home, it will seek satisfaction elsewhere, and many of our workers drift into intemperance, waste, or even crime, through sheer weariness of the dull though honest road of life that ‘leads uphill all the way.’ But others, while they refuse to drift, are just as conscious of the ceaseless drain upon their health and energy that is involved in adhering to their standard of respectability.”

To sum up the answer to the question, “What is Bad Housing?” I would say, that houses in which there are not adequate light and air, abundant water, toilet and bath within each apartment, proper safeguards against fire and adequate means of escape in case of fire, a sufficient number of rooms per family for the proper separation of the sexes, due supervision to prevent occupancy of the house by persons of immoral character, where the walls, ceilings, floors, stairhalls, cellars and yards are not kept in cleanly condition and repair, and where an adequate amount of open space is not provided—such houses may be justly described under the general term of bad housing.

DISCUSSION

EFFECTS OF BAD HOUSING

LEE J. NINDE, Presiding

JAMES JENKINS, JR., *Brooklyn Tenement House Committee:*

The effects of bad housing, as every one knows, are *disease, inefficiency*, which means *poverty and crime*.

These facts have often been stated by the expert and student of the subject, but do not seem to be realized by the general public and so must be stated again and again by different speakers and in different ways.

Perhaps I can emphasize one of the points from our local experience in Brooklyn, N. Y. We had an active committee fighting tuberculosis, and experience of the location of the many cases that came to us proved to us that 99 per cent of our cases came from the poorer, old law tenements, a very large percentage from unsanitary conditions in general and a high percentage from tenements which had dark interior bedrooms, rooms into which no light or air came. After several conferences, we decided that if we were going to fight tuberculosis in our community we must fight unhealthy home conditions. We formed a Tenement House Committee and made an active campaign against dark rooms and unsanitary conditions. For a time, we kept track of the health conditions in the tenements which had been the most improved—where light and ventilation had been provided, and found that instead

of a steady procession of consumptives issuing from these houses, the number was noticeably diminished. This applied also to contagious diseases. Our two committees—Tuberculosis and Tenement—which are closely affiliated, agree that the lowered death-rate of Brooklyn for the next few years was due as much to the Tenement House Department's active work as to that of the Health Department.

Sickness is one of the greatest causes of poverty. As this is so and sickness is caused by unsanitary conditions and bad housing—bad housing is a contributory cause of poverty.

Where many persons are huddled in few rooms, where there is no privacy on account of lack of toilet facilities, where the rooms, by being ugly and smelly, drive the occupants to the saloon—how can one expect the occupants of these rotten places to be moral? Is not the Buddhist theory that the sin of one is the fault of all, or, as we say to-day, of society—the right theory? Are not the citizens of Minneapolis responsible for the moral, mental and physical conditions of all her people?

There is one other point not already made that I want to bring out. It is this. The existence of unsanitary houses makes the passage of general sanitary legislation increasingly difficult. When good general sanitation laws are proposed, the opposition invariably comes from the element who own unsanitary buildings and do not wish further expense or decreased profits. The opposition is practically always from the selfishly interested landlord. He advances clever arguments, but his real thesis is that dollars are more important than lives—that the rights of property are paramount to the rights of the individual.

MRS. JOHANNA VON WAGNER, *Twentieth Century Club, Detroit:*

The effects of bad housing can be seen everywhere in city or hamlet, wherever ignorance and poverty abide. To overcome the effects of bad housing we raise millions of dollars conscience money so that we may better enjoy the blessings of education and a comfortable home. The victims of bad housing are only considered after they need our charitable, medical or corrective agencies. Becoming acquainted with their condition we note the absence of health and happiness resulting in the sinful waste of human life.

The happy home is fast disappearing where bad housing is found. Members of one family use the home as sleeping quarters and otherwise seek brighter spots to spend their leisure—the father often seeks refuge in the nearby saloon from a crowded, dirty and noisy tenement. Grownup boys and girls can find cheap and unwholesome places of amusement. The poor mother and small children suffer most from the effects of bad housing—there is no relief by day or night. Physical and nervous breakdowns of women and an early grave for children are the price paid.

The man's hard labor plus liquor makes him quarrelsome—the woman's drudgery and close confinement plus child bearing taxes her strength and patience beyond endurance. A young woman in years, she appears old and worn and the joy of living is unknown to her.

Cheap rent attracts, as a rule, the cheap tenant; it also makes one. The cheap tenant becomes a very expensive citizen to the taxpayer and philanthropist. Cheap rent means either dilapidated old houses, ver-

min infested, or small ill-ventilated tenements, damp basements, or thinly partitioned attics. It may also mean an undesirable neighborhood. Whatever the case may be, the unfortunate out of work or underpaid man pays dearly for cheap rent—his offspring still pay for it to the second and third generation.

A lack of sanitary conveniences and supervision makes careless tenants, a damp cellar causes serious ailments. The people call it rheumatism, malaria, bronchitis—lack of sunlight and air in vaults and rooms perhaps is the most deadly factor especially where room crowding is found, tuberculosis finding its most fertile soil under these conditions. Defective plumbing and drainage and the contagious diseases seem intimately related. Smallpox, typhoid, scarlet fever and diphtheria can be traced wherever human waste is not properly disposed of.

A close proximity of stables to dwellings and old manure heaps seems to have a direct bearing on the outbreak of cerebro spinal-meningitis. Leaking gas pipes in old residences converted into tenements are a deadly feature of bad housing and often found. Leaking roofs, damp walls, falling plaster, vermin and rats are likewise a menace the poor man has to suffer. The danger from fire is greater in these buildings: the lighting of rooms is insufficient. Dirty wall paper, old stair carpets harbor disease germs and should be prohibited.

The over-heated kitchen with its continuous laundry and cooking steam and unfortunate babies exposed to bad odors and moisture most of the time while the other rooms of the dwelling are cold and damp, causes many cases of pneumonia.

The sentimental viewpoint so far taken of the miserably poor by society has to give way to a more intelli-

gent one—better wages, education and segregation will have to take the place of charity and correction, thereby preventing bad housing and its deterioration of human life.

The efforts to improve the appearances of home and body by cheap decorations and personal adornment are certainly justified and perhaps the first step in evolution. The building of character, the adornment of the soul must follow and can only take place when we substitute “good housing” to promote health and happiness for the “bad housing” and its inevitable evil effects.

TAXATION AND HOUSING

CHARLES B. FILLEBROWN

Boston, Massachusetts

THE housing problem is one aspect of the problem of the distribution of wealth. Howsoever deep the motive which impels the housing movement, its success can be achieved only through the operation of cold, unfeeling economic law, which shall govern and effect a more just distribution of wealth. Only by its aid can capital, through improved planning and reduced cost of building, bring suitable housing within reach of labor's ability to pay.

The solution of the housing problem is bound up with the conciliation of labor in its alleged conflict with capital, a condition which cannot come about until the distribution of current wealth shall be between the two factors labor and capital, *per se*, instead of as now between these and a third factor, privilege, that is, capital allied with monopoly. In this way only can the fangs of privilege be drawn. Capital of itself has no fangs.

The burden of our contention is that privilege is the bane of the social situation, and that its abatement and gradual abolition should be sought. In proportion as the perquisites of privilege are transferred to the wage fund, in that proportion will the housing perplexity cease to perplex, and there is no point upon which it is more important that the public mind should be clear than upon this.

The Century Dictionary defines privilege as "A special and exclusive power conferred by law on particular persons, or classes of persons, and ordinarily in derogation of the common right." The popular conception of privilege is that it is the law-given power of one man to profit at another man's expense.* The principle form of privilege is the appropriation by individuals or by public service corporations, without adequate payment therefor, of all or a large share of the economic rent of land, which rent is created by the growth, activity and expenditures of the community. After this major privilege come the minor ones connected with patents, tariff and the issue of currency.

But, you will ask, how can the treatment of privilege contribute to the solution of the housing problem? And we answer, by the gradual abatement or abolition of privilege through taxation. A tax upon privilege has everything in its favor, since it is conceded that such a tax can never be a burden upon industry, nor can it ever operate to reduce the wages of labor or increase prices to the consumer.

The immediate tendency of the taxation of privilege would be to transfer to wages that portion of the current wealth which now flows to privilege. In other words, it would widen and deepen the channel of wages by enlarging opportunities for labor, while increasing the purchasing power of nominal wages through reduction of prices. On the other hand, it would abate privilege by requiring the man who has a privilege to pay for it, the fair inference being that so far as privilege is paid for, it ceases to be a privilege. A betterment of wage

* P. 146. This and subsequent page references are from "The A B C of Taxation," C. B. Fillebrown, Doubleday, Page & Co., 1909.

necessarily follows the taxation of privilege. Fifty per cent would be a conservative estimate of the betterment to wages which might be secured in this way.

The main approach to a fair distribution of wealth lies along the line of fair wages and fair prices. But what are fair wages and fair prices? Practically and substantially fair prices are prices unenhanced by privilege, and fair wages are wages undiminished by taxation. Under such a régime, wealth that now goes to privilege will be gradually diverted to the wage fund so that eventually instead of the two channels of distribution, wages (counting interest as the wages of capital *per se*) and privilege, current wealth, that is wealth as it is created, will finally flow into the one channel of wages—wages of capital, of hand, and of brain.

Above and beyond the value of franchise privilege, which in a final analysis is itself a land value, there is one thing, viz., the private appropriation of the net rent of land (total ground rent less taxes), which constitutes the bulk of all privilege and which is of gigantic proportions. Various careful estimates agree that out of the total wealth of the United States much more than fifty billions of values are socially created, but privately appropriated. On a 5 per cent basis this would amount annually to twenty-five dollars per capita, or an average of one hundred and twenty-five dollars per family of five, which of itself explains the constant increase in the cost of living. In large cities where reliable statistics are available, these figures run far higher. The people of the city of Boston pay for the use of Boston land more than fifty million* dollars

annually. The city now takes of this amount more than ten millions in taxation, leaving about forty millions net rent to be privately appropriated, every dollar of which represents labor value. This would amount to say sixty dollars per capita, or the very considerable sum of three hundred dollars per family of five.

So much for the thing to be done, but how about a *modus operandi*?

Not only have presidents spoken and written freely on the abridgment of privilege, but many proposed government measures have been aimed at its accomplishment. Without invading the field of politics, we may note that Republican Wall Street and Democratic Tammany, the chief exponents of nonpartisan privilege, were simply evicted from the Baltimore Convention, and many administrative achievements so far have been in keeping with that initial action.

Congressional trust bills have sought not to curb business but to curb privilege. The fall of New York, New Haven & Hartford from 279 to 43 in the Wall Streets of the country means little to the traffic or the travel of the people who use the road. The railroad still remains and its legitimate business remains. It does mean everything to the stock market, the dealers in privilege, to speculators in and forestallers of labor and skill and brains. Administrators keep right on "running the road," however many the millions that may have been filched from widows and orphans, or however many manipulators of privilege, posers as benevolent patrons of enterprise, may go to the wall. Every curb to privilege means relief to labor from payment of dividends on water. Every abridgment of privilege means just so much carried to the credit

side of the wage account, and this it is that has immediately to do with the housing problem.

The record of the national administration so far affords striking endorsement of the Jeffersonian principle of "equal opportunities for all, special privileges to none." This is what states and statesmen ought to mean by "equality before the law." Without this, "equality before the law" is a juggling phrase. Only so far as privilege is expunged from the statute can there be any approach to our vaunted "equality before the law."

People are awakening to the fact that for enormity of proportions, for unconscious, unintentional but aggravating injustice, the private appropriation of ground rent is more devastating than all other privileges put together, and is "against public policy." Think for a moment what have been the extensions, accelerated exploitations, ramifications and encroachments of privilege in the brief period of fifty years; how it has fattened upon the fruits of labor, which ought in justice to have gone to the nourishment of labor. What is needed is a distinct change of tendency. Agitation in this direction has been under way for some years, and during the twelve months past it has penetrated or inoculated almost every business field, up to the dead line at which every reform halts, viz., the land, which seems to be the sacred stopping place in the advance upon every social enemy. The significance of this fact appears to have escaped the attention even of non-privilege presidents. When people outgrow the pagan fetich that the rent of land should go to the few, instead of to all, when they realize that, taking Boston for an example, the worship of this fetich costs its people annually not less than three or

four hundred dollars per family—five or ten times more than the worship of the true God—then monopoly's line of battle will vanish like the morning dew.

Under the tax laws of to-day every Boston man as occupier bears an equal yearly tax burden on the house he lives in at the rate of \$18 per thousand. Why should not the owner of Boston's land bear the same tax burden at the same rate of \$18 per thousand upon his investment now confessedly free of the burden, thus putting the house man and the land man on the same basis, that is to say, proportionately reducing the income of each. To the above extent taxation may be applied for the solution of your housing problem at once, and without a shadow of injustice to the land owner. Such impartial rate on house owner and landowner, of which a generation of even limited foresight might easily have given us to-day full realization, would mean twelve million dollars more of economic rent (or say \$80 per family) to the good of the people of Boston. Fifteen or twenty years would be ample for the gradual accomplishment of the rectification of things, and landowners would scarcely be aware of the change, more especially since it would usually be more than offset by the natural advance in the value of the land.

Let it be borne in mind that we have been speaking of the ultimate possibilities of the taxation of economic rent, "the taking by the community for the use of the community of that which is the creation of the community." It is claimed for this process that it will gradually effect the lockout of privilege, while unlocking to labor the doors of opportunity. Reflect for a moment what it would mean to labor if Boston should make an intelligent and earnest start to renew the

imperfect housing even of its business, to say nothing of its people. We are trying to present to your prophetic eye the final beneficent results which a just tax system can be trusted to work out without any overturn to person or institution or society. No sudden shock is contemplated, but rather respect for the feelings of the landowners, from whom as a class a full share of help may be counted upon. This general plan, if adopted, will, it is believed, directly set in motion two tendencies: (1) the reduction of harmful monopoly to a point of innocuous "privilege"; (2) the enlargement of the wage fund to a point of fair proportional distribution. Just at what point these opposing tendencies will meet in stable equilibrium only time can tell. The vital thing is to lose no time in beginning. There is no reasonable excuse why a start should not be made directly in this year 1915. A generation ought to work wonders. We are sometimes met, however, by the sober question, where is the housing capital to come from? Naturally, it should come out of a superabundance of its own by which it would be self-constrained to broaden and extend its field of investment to include the humblest of housing. As fast and as far as capital's field of investment is narrowed through the restraint of privilege, just so far will it have to find a way, or, what is more in keeping with its responsibilities, *make a way* to occupy itself in the very necessary dividend-paying but now neglected work of housing the millions, the easy accomplishment of a generation or two. We may confidently look to a new incidence of taxation to enable the millions to pay the actual ground rent of the land and interest on their houses. To-day they are not able to bear monopoly charges and needless taxes upon houses.

The habits and limitations of capital are patent even to the casual observer. Its first preference is for land speculation, including natural resources, franchises that are addicted to extra dividends, and the watering of stocks. Already an oleaginous hand of the capital octopus is plainly apparent in business consolidations. The first direct attention of capital to the housing problem is of comparatively recent date and has resulted, in Boston, in the seemingly complete solution of the problem of "office" housing—in a complete hegira of tenants from chambers and garrets that were out of date even in ante bellum days, to quarters of perfect modern comfort and utility. But at this stage capital seems to have halted for rest and refreshment. Here, again, Boston has a ready explanation in that office buildings offer a tempting rent roll at comparatively small land investment.

Up to now, capital, it may be said, has had little to do in the way of looking around for jobs. Individuals have had to do the searching. When the New York, New Haven and Hartford Railroad, and many other wide open doors to big investments and big profits, begin to shut by legislative compress, then capital, by pressure of its own accumulation, may, after the housing of general business, turn to the humbler employment of the housing of its artisans and laborers. The increased taxation of land will operate as a double incentive. It will invite capital to a sound investment at a fair rate of interest; it will also constrain it to make improvements in order to secure income from the land out of which to pay the land taxes.

The housing of Boston's general business, which requires comparatively less capital, but still more brains, is just now beginning to receive attention.

Chicago has one model department store, Marshall Field's, model because it has room. There are but few notable model department stores in the cities of the United States because room cannot be had except at exaction prices in dealing with one or twenty estates. Nine-tenths of Boston's mercantile business is still literally fighting for room to expand.* Much of Boston's business is still housed behind, as it were, portable or shifting galvanized outsides.† In the apartment and tenement housing is found a parallel to the housing of business.

After providing the well-to-do apartment house (without children) and the moderate tenements, capital shies at working down to the foot of the list, but leaves the finishing stroke, the housing of the humblest laborer, as a problem for society and the social worker to solve. There is one rule that capital may be trusted to follow, viz., that while it can get a double or treble rate on its present investments, it will lack the incentive to supply a new housing which demands a double investment at half the rate.‡

For the satisfactory solution of this problem, the housing of the millions, there is required the same kind of money, but still more brains, coupled with public spirit and civic pride which, by the gentle compulsion of a rectified self-interest will force capital into the rôle of a model landlord in providing for tenants at lowest possible price the best accommodations and facilities appropriate to the situation that money can buy, example of which is found in the hotels of the D. O. Mills foundation in the city of New York. In this consummation, the landlord will find in taxation a valuable ally since, with purchase prices of land reduced

* P. 150.

† Pp. 60-61.

‡ Pp. 58, 59, 60, 70, 77.

by the increased taxation, he can do a larger business on the same amount of capital.

The proposal of a method of just, scientific, and natural taxation is so simple and unpretending, that eager social reformers cannot believe it possible that it contains within itself a cure for the evils of our time. They point to the unequal distribution of wealth, the growth and power of monopolies, the watered stocks and bonds, the bribe-bought franchises, the usurped privileges, the stolen lands, the wholesale appropriation of public property to private use; and they ask how it can be possible that "a mere fiscal reform" can bring relief from all these evils. Nevertheless, we have tried to show that it can.*

A liberal contribution to the solution of the housing problem may be looked for in the reclamation of the people's rights to their alienated public lands. The public domain has now been practically absorbed into private hands. The Supreme Court has just confirmed a railroad's title to three or four billions of dollars' worth of California land, but no Supreme Court can exempt such land from equal taxation under any general system. Taxation is the wide-open avenue to the recovery of a nation's or a state's squandered natural resources. With an anti-privilege president on the Congressional bridge, and the National Housing Association at the wheel, the Ship of State may beat steadily into the coveted haven of every nation's destiny—the welfare of its millions.

*Thomas G. Shearman, *Natural Taxation*, Doubleday, Page & Co., 1911.

HOUSING AND THE UNTAXING OF BUILDINGS

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THE fundamental point in the demand for the exemption of buildings from taxation is the contention of the single taxer that private property in land is unjust and that property in everything else is necessarily just. With this general proposition, I have dealt elsewhere and have attempted to show that both branches of the contention are unsound. This Association, however, is interested in a much more restricted phase of the subject—the contention, namely, that the housing problem can be solved by the exemption of dwellings from taxation and that as a consequence houses ought to be so exempted. It is with this far more modest phase of the problem that I shall occupy myself, leaving entirely on one side the question of the truth of the single tax as a general philosophy.

In approaching this more restricted problem, however, it is essential to distinguish between two questions. The first is, as to whether in truth the housing problem in large cities can be solved by the untaxing of buildings. The second and more important question is whether, even if the first be answered in the affirmative, it is for other reasons inadvisable to introduce the alleged reform. For after all, we must carefully distinguish between the two aspects of every tax—the fiscal aspect and the social or general economic aspect. In modern times, it has become, and right-

fully so, the custom to emphasize the social consequences and effects of a tax. But this must not blind us to the fact that the primary function of a tax is to raise money; and that while a tax system ought indeed to be so contrived as to have the least possible deleterious social results, the primary fiscal rules of every revenue system must always be borne in mind—viz., adequacy and equality. Even a socially desirable change in a revenue system which would result in fiscal embarrassment or gross injustice of burden could not be defended.

Let us take up first, then, the problem as to whether the untaxing of buildings would solve the housing problem in large cities. It may be taken for granted that, under ordinary conditions, while a tax on land remains on the landowner, a tax on houses will be shifted to the tenant. Other things being equal, therefore, it would seem that the untaxing of buildings would result in lower rents or in roomier apartments at the same rent. Before, however, it is legitimate to assume this result, it will be necessary to bear three things in mind. In the first place, it is a notorious fact that since buildings depreciate in the course of time and since it is not the custom in America to provide a depreciation fund, intending builders and especially intending home-owners count upon the expected increase in the value of the land in order to make good the depreciation in the building, or even apart from that in order to enable them to pay back the money they have borrowed in financing the property. An increase in the land taxes would obviously mean a *pro tanto* slackening in the increase of land values, or even in a great majority of cases an actual decrease in land values. To this extent the prospective growth in the number

of houses would be checked and the expected result in the way of lower rents retarded.

In the second place, we must count, especially in large cities, with the element of friction. In actual life, all sorts of influences which would take too long to recapitulate here come in to prevent the benefit of lower taxes from being transferred to the tenant. These influences are known to all students under the name of "inelasticity of demand" and would, without much doubt, frequently to a large extent, impede the process. Again, it is by no means sure whether the benefit, if it actually reached the tenant, would take the form of lower rents or of larger rooms. If it took the latter form, it is questionable whether congestion would be appreciably relieved. For, as we all know, the worst congestion in our large cities is due to the filling up of the rooms by boarders. And if the rooms were a little larger, the result would probably be the taking in of more boarders. For where rents are so high, as they are in large cities, and as they would substantially remain, tax or no tax, tenants will try to save as much as possible on their rent in order to have more left for the other expenses.

In the third place, houses in our large cities are almost everywhere built on borrowed money. The margin of security on the loan is not very high. If by the sudden untaxing of buildings there should be a substantial decrease in land values, this margin would be apt to be seriously impaired. Intending builders will as a consequence have to pay a higher interest rate on their mortgages and this would tend in part, at least, to offset the benefit of reduced taxes.

Thus from many points of view the enthusiastic hopes for lower rents as a result of untaxing buildings

would have to be moderated. There would indeed be a tendency ultimately to have lower rents; but the reduction might be far less than was imagined, might be much slower in coming than was expected, and in many cases would not come at all.

The housing problem, or congestion problem, depends, however, not alone upon the number of tenants per room, but also upon the number of tenants per acre. In other words, we must not forget the problem of high tenements and of open spaces. It is quite beyond question that the untaxing of buildings will increase the tendency to erect lofty tenement houses in the slums, and will decrease the tendency to have little gardens about the houses in the suburbs. While, therefore, the untaxing of buildings might have some effect upon reducing the congestion per room, it would on the other hand increase the congestion per acre. It could, therefore, not be said to solve the housing problem, for it will make some aspects of the housing problem worse. It is no answer to say that high buildings can be prevented and public parks multiplied by law. It is possible to accomplish these results now and yet they are not accomplished. What we are studying is the tendency of the projected measure taken by itself, and not in view of other legislation which may or may not be obtained. The untaxing of buildings by increasing the height of buildings and by diminishing the open spaces about buildings may do at least as much harm as the possible reduction of rents may do good.

We now come to the second and more important part of the problem: what will be the general fiscal and economic effects of the untaxing of buildings?

Here, in the first place, it must be pointed out that as a general fiscal proposition of undoubted validity

the narrowing of the base of taxation is always to be regarded with suspicion. The higher taxes on land, which would result from the untaxing of improvements, would have a doubly injurious result. The assessment of property would be twice reduced, first, by the removal of improvements from the assessment roll and secondly by the decrease in the value of the land itself. In almost all American states there is not only a constitutional limit as to the tax rate on property, but a constitutional limit as to the amount of indebtedness which is restricted to a certain percentage of the real estate. The great narrowing of the base would in many of our large cities render necessary a tax rate which would transcend the constitutional limit and which might therefore seriously interfere with the conduct of the city's affairs. In the same way, the restriction of the debt limit would often be most embarrassing. The fiscal results might therefore most assuredly be injurious.

In the second place, the project would violate some of the most elementary principles of equality. In a careful investigation that has recently been made under the auspices of the New York City Committee on Taxation, it has been shown beyond the peradventure of doubt that results like the following would ensue from the untaxing of buildings: The sky-scrappers would pay less than at present and the wealthy individuals and corporations that own these structures would be relieved from taxation. The great mass of modest single homes in the Borough of Manhattan would pay more than at present, and the tendency would be strongly accentuated to drive such home-owners into the large apartments. Finally, in almost all the groups of apartment and tenement houses in the Borough of

Manhattan, the wealthier owners in each class would be relieved at the expense of the more modest owners. In all these ways, we should have a travesty of justice; instead of equality we should have inequality of taxation.

I am prevented from lack of time from more fully elaborating these and other points that might be introduced as for instance the general unsettlement of values, and the confiscation, through a capitalization of the added tax, of the property of thousands, large and small, who have invested their hard-earned savings in city real estate. There is a way of discouraging the mere land speculator, without ruining the honest investor or modest house-owner. I shall close, however, with one simple warning. The untaxing of buildings is not only a housing problem but a more important fiscal problem and a still more important economic problem. Let us not be carried away by enthusiasm. Remember that taxation is a far more complicated and subtle matter than is imagined by the ordinary tyro. Do not forget that the adjustment of taxation has always tested the energies of our greatest statesmen, the world over. Do not make the mistake of thinking it a simple matter and of regarding any particular measure from a narrow or merely social point of view. Were I to discuss the general policy of levying higher taxes on land, or even of starting out in a small community with a system of land taxes only, to which the economic life might possibly adjust itself, that would be one thing. But it is quite another thing to take our larger centers of industry, with all their complicated property relations and to demand such a change in tax methods as would amount to a revolution in property relations. Let us not advocate any such

change unless we are quite sure, both from general principle and from concrete experience that the benefits expected will actually be secured and that these benefits on the one hand will not be more than outweighed by injuries on the other. It is because of my serious doubts on these points that I am compelled to withhold my support to the untaxing of buildings in large cities. The housing problem can indeed be solved. But this is not the way to solve it.

DISCUSSION

TAXATION AND HOUSING

JOHN J. MURPHY, Presiding

E. T. HARTMAN, *Secretary Massachusetts Civic League, Boston:*

Mr. Fillebrown makes a plea for a constructive economic principle. Professor Seligman offers technical objections and warns us against the possible dangers of things untried.

Both points of view are entitled to consideration but we must keep in mind that progress requires change; it means change. New conditions arise and the world learns. We will constantly do things differently.

Mr. Fillebrown's economic principle is that capital and labor, the two productive elements in the creation of wealth, should adjust the distribution of wealth between themselves unhampered by privilege. Privilege on either side is bad. As defined it is "in derogation of a common right."

Professor Seligman ignores the principle, and treats in an indeterminate way a single feature of its application. He tells us that "This is not the way to do it," but he does not tell us how. He tells us "that the assessment of property would be twice reduced . . . secondly by the decrease in the value of the land itself." This is the reverse of the truth. Instead of a partial and unequal basis of net value varying with the rates of taxation, would be substituted a gross rental value.

The shop-worn contention that the abolition of privilege is confiscation is supported by privilege only in its efforts to mislead both capital and labor. The robber baron built his castle and collected, by means usual to privilege, a group of retainers. It was confiscation to take his castle and disperse his retainers but an aroused public opinion, with the idea that the baron had no right to the lives and property of producers, got rid of the castles and the retainers, and by a process not so gradual as land values taxers are proposing.

This is the growing attitude of public opinion in regard to the land, the values of which are a social creation which the people should possess. They need it for life, health and happiness, for civic and social purposes; because all life, all industry, all creation of wealth depend on land. There has been confiscation. The values of the land, created by the activities of capital and labor, have been confiscated by land-owners, mainly the owners of idle land.

The man who pre-empted land, leaves it idle, does not improve it, or employ labor, or allow anyone to use the land, and who says to all comers that the land is his and that he will have the increase of value due to the work and expenditures of the people is no whit more right than the robber baron. In the period of loose living when the barons thrived, conditions existed which could not continue if the human race was to advance. The large element of non-producers made it impossible for the producers to maintain a foothold. This is so at the present time. With land values continually climbing, every advance coming at increased expense to the producers, and with these values given so largely to non-producers, we are on losing ground.

Land values taxation would place land in the hands of those who would use it and remove it from the hands of speculators. To hold land for use is good, to hold it for speculation is the worst form of speculation. If it is wrong to speculate in the food of the people it is surely wrong to speculate in the only source from which food may be produced. Men might have castles to-day for what they were worth as places of abode if the special privileges of landowners did not interfere. But castles are expensive to-day for a reason like unto that of the Middle Ages. So is the little home of the working man expensive. The laborer of to-day lives in a hovel and serves for a pittance just as did the retainer of old.

This is why land values taxation is fundamental to housing reform. The people who would use the land must have access to it for its economic rent, unmolested in any way by privilege. I buy half a townsite, it may be of New York, Minneapolis, or any other place, and let the people who use the other half make me wealthy. That is privilege. In the meantime the expenditures on the part of the public for increasing my values are taxed mainly upon the productive element, so that it seems the only crime for which a man is fined annually is to improve the community by building a home or improving one. Justice would give the value of unused portions of the land to those who create it.

Land values taxation would cause congestion, argues Professor Seligman. Housing laws have failed to solve the problem, they would continue to fail. Unproved and unreasonable. Laws can prevent congestion if enforced under a condition which opens the land to

the people. Laws cannot prevent congestion as long as those who will may hold land in idleness.

Common justice to-day asserts that Mr. Fillebrown is right. The whole system of land speculation is wrong, whether the speculator wins or loses the system is wrong. To hold land idle when one would use it is a crime. Public opinion will assert these things and bring into practise the principles for which Mr. Fillebrown contends. These principles will help homes, agriculture, manufacturing, business, real estate dealers, everybody but land speculators. Land speculators will be given a chance to manifest that great American trait, mobility of labor.

“THE PLACE OF HOUSING WORK IN A HEALTH DEPARTMENT”

GEORGE B. YOUNG, M.D.

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IN a sense the title of my paper begs the question. It assumes that housing work is properly and normally a function of a health department, and as to that there are very divergent views.

One defect in the discussions at the meetings of organizations which, like our own, have as a reason for their existence the desire to further some special reform or to teach some special doctrine, is that we do not get a chance to hear the other side. We assume that we are the people and that wisdom will die with us; we agree among ourselves as to what is just and right and dispose of the other side by the quick and easy method of assuming that it doesn't exist. It would be a good thing if we could have in every day's programme a place reserved for a sort of "Devils advocate." Someone to maintain a thesis as scandalously heterodox from our point of view as possible.

We probably wouldn't convert him, and he certainly wouldn't convert us, but such a hostile critic of our positions would make us a little more precise in the formulation of our premises and a little more careful in the deducing of our conclusions.

A good many of us here are members of the National Association for the Prevention of Tuberculosis and may recall the meeting in Washington a little over a year ago at which one session was devoted to the

subject of physical examinations and follow-up home work among the employees of industrial plants. We all were so entirely satisfied that the work was both ethically sound and practically constructive that some of us fairly gasped and a good many were quite scandalized when Mr. Gompers proceeded to attack the whole plan as sociologically unsound. I don't think he converted any of us, but he certainly made some of us think, and thinking never seriously injured anybody, not even a convinced propagandist. It would greatly profit us, therefore, if we could enliven our sessions by securing the attendance of a few really militant representatives of the class which, having acquired a piece of land under a deed giving the old common law rights "*a terro usque ad cœlum*," refuses to consent to the proposition that anyone not in the highest circles of the last mentioned locality has any right to meddle with what is built between the metes and bounds as given in his deed, whether horizontally or vertically.

In the interest of fairness, therefore, it is just as well to consider the views of those who hold that housing work has no place at all in a health department. There are such people both in and out of health department work. The numbers of the former class are rapidly diminishing, but there are some able and efficient men among them. There are some also who admit the propriety of entrusting to health departments the correction of the conditions resulting from bad housing, but deny if not the propriety at least the expediency of giving to the health departments the direct and immediate control of preventing of the creation of bad housing.

It seems proper here to consider how this condition has arisen.

In the gradual development of modern municipal control of housing, the logical sequence has been to first prescribe structural requirements as relating to the component materials and the methods of their assemblage into a completed structure. Primarily this was for the safety of the inmates and secondarily for the safety of adjoining and neighboring structures. To a small degree, also, it was in the interest of appearance and public convenience, as in fixing heights, building lines for frontage and the like.

Building departments developed for the control of these things, and when in the dawn of the present-day sanitation an exaggerated importance was attributed to plumbing as a factor in disease prevention, the work of plumbing control was not illogically placed, as a rule, in the hands of the same departments. Not illogically because at that period health departments were very rudimentary affairs, largely concerned with the control of epidemics and entirely without the technical knowledge or administrative machinery necessary for plumbing control.

The changes in material and methods of construction and the increasing attention given to the lessening of the fire hazards have greatly increased the responsibility of building departments and necessitated an ever rising standard of technical skill in their officials. Meanwhile the development of bacteriology as affecting preventive medicine concentrated the attention of health departments upon work related more especially to the immediate causative factors in disease, rather than upon the environmental conditions which favored the operation of such factors.

It is really a curious thing that the very rapidity of the extension of our knowledge of the causes of

diseases and the phenomenal expansion of the health department work and increase in technical skill among health department officials tended for the time to narrow the horizon of both and make them rather inattentive to other movements concerned with human betterments and quite directly connected with the health of the community, yet such is unquestionably the fact.

When the importance of good housing to the public welfare began to arouse interest, those agitating for improved control, moved either for the establishment of new agencies for the effective expression of new ideals, as conspicuously in the New York tenement house department, or naturally enough for the expansion of the functions of the existing building departments, and, much as we feel the enormous deficiencies in existing housing control, we must concede the great advances that have already been secured by means of both the establishment of special agencies and a development of the old ones.

When, therefore, the proposition is advanced that housing control, shall become, even in part, a function of a health department, the people who have been doing the work are at once quite humanly and naturally hostile to the proposition. Especially is this so concerning the control of the creation of new housing.

Later in my remarks I will have something to say in detail of the objections raised to a change in existing methods.

For the present the argument may be summarized in this formula, "We have developed this thing and know something about it. The health departments have paid but scant attention to the movement and know little about it." This view is as old as the time of the apostles.

“Tenement commissions have planted and building departments have watered, why should the health department garner the increase.”

Turning to the health officials themselves we find a few who are not in favor of adding housing control to their departmental activities and a large number who, while approving the idea that they should increase their activities along the line of correcting the effects of bad housing, look askance at the idea of preventing it.

They say that health departments have a sufficiently wide field in combating disease and in preventing it, both by the direct application of their growing knowledge of its immediate causes and the education of the public as to the avoidance of the causes, and too much difficulty in securing the means for the adequate discharge of such duties without seeking to enter fields of activity for which they have hitherto had no preparation.

Now we can't meet these arguments by ignoring them. We must take this thing up and look at all sides of it. We might just as well in the beginning, admit that it is very largely true that we health department people really know very little about housing and have contributed still less to forwarding the great modern movement for housing reform.

Because a thing is thus and so, may, however, be no reason for letting it stay so. It is up to those of us who think things should be different to set forth the reasons for our opinions, in an orderly way, and then fight for their acceptance.

In the time available here it is inevitable that argument must be in part replaced by dogmatism, but as far as may be I shall try to give my reasons for holding that housing control is not a thing appropriate to the work of a health department, but that it is vitally

essential to the proper development of health department activities and fundamentally necessary for the improvement of housing conditions.

To do this I am going to abandon my officially prescribed text or rather transpose it.

For the present, therefore, let us drop the consideration of "The Place of Housing Work in a Health Department" and consider "The Place of a Health Department in Housing Work."

The idea I intend to convey by changing my title is that the real question is not how much of the work of housing reform should be made a function of our health departments or how particular parts of the work assumed by them should be performed, but to what extent is the successful performance of the true work of such departments certain to promote housing reform, almost automatically.

This raises the question at once: "What is the true work of health departments?" The answer occurring at once to most persons is: "To reduce the death-rate from preventable diseases." That answer would until recently have been given by all of our public health officials. It would still be given by most of us. Some, however, would say "To lengthen human life." If this is the correct answer is it manifest that every step towards the attainment of the new ideal is a step towards better housing?

How can the average man live longer unless the average conditions in the places where he lives grow better? This is true for the places where the man will work as well as for the places where he will sleep and eat, for once any group of individuals has been accustomed to reasonable conditions as to air space, light and ventilation in its dwellings it will not long tolerate their absence in its place of employment.

I do not mean to say that if everyone inhabited a model tenement everyone would automatically live longer, but I do mean to say that in any town containing no housing but good housing, class by class, the various factors which add to the average length of human life will be more effective in operation than in towns not so favorably circumstanced.

Of course it is true that one can live unhygienically in perfectly sanitary surroundings and that is precisely what most of us do and it is very natural that we should for living in sanitary surroundings facilitates comfort and ease while living hygienically requires effort and self-denial. Granting this, however, it is none the less true that it is a vastly more difficult matter to teach personal hygiene to those who dwell in slums, even slums of the highest respectability, than to those sanitarily housed; and teaching personal hygiene is the great, new and as yet almost untouched field of the health departments of the future.

Nothing is more certain, in my opinion, than that we may enormously increase the ordinary activities of our health departments and attain an efficiency not hitherto possible in the execution of those activities, and yet, although we will lower the death-rate we will not lengthen individual life until we teach the individual to do for himself the things that health departments cannot do for him. People in the aggregate will live longer because there will be more of them living, but those who live beyond fifty will not increase in numbers.

Now the teaching of personal hygiene by health departments may at the first glance seem but remotely connected with the place of health departments in housing work, but upon closer inspection the immediate relation will be apparent.

You cannot secure any great general advance in housing without first securing great and fundamental reforms in sociological conditions.

Model towns and garden cities are admirable both as object lessons and inspirations but they are essentially revolutions from the top, and revolutions from the top always lose impetus as they progress downward, while revolutions from the bottom gain impetus as they advance.

The reason is quite manifest: Revolutions from the top are manufactured; revolutions from the bottom are vital growths.

Now, as I see it, there is nothing more certain than that the health departments of the future have got to be great agencies of social reform if they are to attain the true objects of their existence. You cannot teach the mass of people the conditions under which they should be born, be educated, be employed, how they should eat, sleep, travel, work and play, without powerfully impelling them to struggle for the removal of the conditions which hinder them in the attainment of their new ideals.

The most powerful stimulus to human endeavor is self-interest and the great strides in humanity's advance are taken only when the self-interest of the individual becomes for the moment the common interest of the mass.

One of the first reforms that will come when the work of health departments along the lines I have suggested begins to bear fruit is a reform in housing. This will be so because housing improvement is a tangible thing visible to all, understandable of all.

This then is the place of health departments in housing reform: To bring about a state of average

public intelligence wherein good housing will not be the recommendation of the few in the interest of others, but the demand of the many in their own interest.

A good many, I know, will question if not the theoretical necessity at least the practicability of the expansion of health department activities along the lines here suggested. For them I feel moved to recall an incident that occurred at a political convention in Texas just after the close of the Spanish war. A statesman offered a resolution setting forth the difficulties and dangers that would menace this country if it persisted in the policy of territorial expansion and supported his resolution in an oratorical outburst of most forcible argument and eloquent appeal.

He took his seat and the assemblage seemed convinced when another speaker addressed the chair, "Mr. Speaker, what's the use of passing in a resolution the like of that? We done expanded." To the doubters, therefore, I would suggest a close study of what has been done during the past two years in New York by Commissioner Goldwater.

Now let us turn to a consideration of the practical workings of health department administrative machinery in the performance of its duties in connection with actual housing work. In other words let us go back to the programme text "The Place of Housing Work in a Health Department."

Before proceeding to discuss, however, what health departments should do in the actual administrative methods of housing control it seems expedient to first consider:

A. What has hitherto been the almost universal practice as to the position of housing work in health departments and the results?

B. What has been the most recent change in this practice? I think it is safe to say that up to the very recent past health departments have had practically nothing to do with new housing. They have confined themselves pretty much to trying to regulate the habits and mode of life of the people who live in the houses after the latter have been built. In other words they have busied themselves with the sanitary conditions of the premises or the manner of occupancy as affecting the comfort and health of the inmates or their neighbors.

Now, inasmuch as the insanitary conditions provided against owed their origins in no small measure to the location, design and methods of construction of the houses themselves, the sanitary authorities have had a most discouraging fight on their hands.

The man who built a house in strict conformance with a plan officially approved by a municipality had something more than color of equity in the contention that it was unfair to require a standard of maintenance or a method of occupancy to which his officially approved building was inherently unadapted. His point of view appealed strongly to the man in the street who elects officials and sits on juries.

It takes a pretty hard-hearted official to insist that an owner shall make alterations that are confiscatory in effect. If I remember correctly Jacob Riis spoke once of the unhappy hours he experienced when the condemning of certain structures absolutely impractical of amendment and absolutely impossible of toleration without it, wiped out the support of certain orphan children. If philosophy has been correctly defined as the ability to bear with equanimity the misfortunes of others, I have my share but there have been times,

not a few, in the past four years when I felt that I could not be just to the community without being unjust to the individual.

Starting then with the rather vaguely defined "control of sanitary conditions," which quite commonly means the control of the acts of the inmates as these affect the comfort, convenience or health of their neighbors and not at all the comfort, convenience and health of the inmates as affected by the houses they dwell in, the health departments have gone on to reforming the plumbing regulations, the lighting of halls, controlling the occupation of cellars and basements and a number of other necessary, but from the real housing control standpoint, quite secondary matters.

In a general way it may be said that an enormous amount of energy has been expended in the attempt to ameliorate the inevitable effects of manifest causes.

That many of our health departments have achieved such really remarkably creditable improvements in the conditions arising from former unintelligent housing construction is greatly to their credit. It gives great encouragement to the hope that they will really make the chips fly whenever they can replace with modern tools the paleolithic implements they now employ.

It is useless to take your time in mentioning by what bureaus or division and organizations the health departments have conducted their housing activities. Some are much better than others but they are nearly all handicapped by the laws of their communities which have entrusted all matters fundamentally affecting housing to the care of building or engineering departments developed to meet the necessity for structural safety and public convenience and not for the promotion of the general public welfare.

Such laws ignore what I beg leave to state as a fundamental principle. "Approval as a dwelling should precede approval as a structure."

It is a curious indication of how firmly established is the popular conception that inverts this principle.

In preparation for these remarks I inquired of a large number of health officials as to the duties they discharged directly connected with the control of housing. Several replied that they had control over housing and proceeded to enumerate the various purely corrective duties with which they are entrusted.

One thing upon which a number put stress is their authority to regulate occupation. This varies from authority to cause the vacation of insanitary dwellings to authority to prescribe the number of inmates. This is a really important power and in some circumstances may give a measure of indirect control of new housing as well as a direct control of very bad housing. Further than that it cannot go and it is consequently inadequate to reach the root of the trouble.

This is because it is not the housing manifestly bad that is the real object of our solicitude as affecting the mass of the people but the housing that looks fairly good but isn't.

In this connection it is necessary to say a word about New York because the situation in that city is quite unique. They really had a housing department before, in the broader sense, they had a health department but, and this I say with all respect to certain of the leaders in our national organizations, it was not because New York was inherently wiser than other cities but because the circumstances of her location and growth made her housing inherently worse, or rather that her housing became very bad at such an early

stage of her municipal evolution that something had to be done about it long before any existing agencies were equal to the undertaking.

Passing to the consideration of the more recent kind of housing work in health departments we find a marked development in the direction of giving them authority to prevent undesirable construction or alteration. To some extent this has been done by consulting health departments as to the amendment of old building codes or the drafting of new ones. This has not on the whole been a very frequent or successful practice I imagine. The fact is that in the majority of instances, it certainly was so in Chicago, the movement for reform in the housing code originated outside of the health department.

The really strong tendency at the present time is to put into the hands of the health department the direct administrative control of the part of the building code not directly connected with materials and their method of employment.

Chicago was the first very large city to take this step; the ordinance finally going into full effect in the fall of 1911. In a general way this law requires the approval of plans as far as they relate to floor space, air space, ventilation, lighting, location on lot and general sanitary conditions before the plans go to the building department for its action, and further provides for permit for occupation to be issued by the health department upon the completion of the structure. The approval of plumbing plans and inspection of all plumbing was already under the control of the health department.

The law is a good law and it is bearing good fruit even if it did take us until January, 1915, to get a division of housing and sanitation established in the sanitary

bureau, for the more effective co-ordination of that bureau combined preventive and corrective functions, but it doesn't go far enough.

The new Cleveland ordinance, in effect June 1, 1915, follows substantially the same lines, but leaves in the hands of the building department the approval of plans for new buildings as concerns the percentage of lot occupied.

The Cleveland law provides for the requirement of a license for occupancy to be issued annually by the commissioner of licenses and assessments upon the order of the health department and this is a great improvement upon the Chicago permit system.

The Pennsylvania act of June 3, 1915, provides for the creation of a division of housing and sanitation in the health departments of cities of the first class and gives them very wide control over the plans for dwellings and tenements and their use, occupancy, maintenance, etc.

California, as far back as 1913, passed a law providing for the "building and occupancy of tenement houses in incorporated towns, incorporated cities, cities and counties" and placed its enforcement under their respective health departments unless the towns or cities changed the delegation of authority by appropriate ordinance, except that the authority of the health department over sanitation and ventilation "in tenement buildings not in course of actual construction or operation" cannot be diminished nor the authority to issue permit of occupancy upon completion of construction.

On the face of it this is a curious law. Either the health departments should have the authority granted in the first paragraph of section one or they shouldn't.

The provision last referred to leaves the commissioner of health the rôle of the doctor at Sancho Panza's famous meal. He can't tell the guest what shall be served but he can say what shall be eaten. When the guest is a citizen and a voter and has paid for his viands the rôle of the doctor offers plenty of opportunities for excitement.

These laws show the present tendency to give to health departments the vitally necessary authority to determine if the proposed dwelling or tenement will be properly habitable before anyone else passes on any other phase of the matter or rather to determine if the tenement will be as habitable as the existing law requires.

This distinction is important and must be kept constantly in view when drawing amendments or new laws to strengthen the hands of the health department; otherwise the department will be put in the position of being compelled to approve plans on account of their legality and not their desirability.

The probability is that as far as concerns the larger cities and towns the general principles of the laws just cited will for some years be the guide in new legislation for housing reform. The health departments will have to make good in their new functions before they can hope for further advance.

Strong opposition from existing official agencies will be met in some instances and still stronger opposition may be expected to develop among certain groups of owners, builders and architects. This has already manifested itself to some extent in Chicago. It generally conceals its real objections under the complaint at having to secure approval of several different sets of officials, as the health department, the building

department and the fire department. This really is a source of annoyance and delay but it can be removed by intelligent administrative co-operation.

To those who seek improvement in their housing laws along the lines indicated I would urge that the plan for the issue of a license for occupancy for a small fee is better than that of a permit. It is a legitimate source of revenue and as such it can be looked after by the civic agency prepared to enforce it as part of the general license system.

In this connection I would suggest that it would help if the failure to secure the license carried with it the voiding of the right to collect the rent.

Another requirement that should by all means be made is that the permit or license for occupancy should fix the amount of occupancy permissible and that in the case of lodging houses, hotels and boarding houses, notices of legal capacity be posted in each room.

Sooner or later the next step must be taken, but it will be much later, I expect, in most large places.

The building departments as separate entities must be abolished and their functions and staffs transferred to the jurisdiction of the health departments.

This sounds revolutionary but it is logical. It is a step in the direction of supplying simplified administration by reducing the number of administrative units.

If you ask can health departments be developed sufficiently as to absorb such new functions, I answer that they will have to qualify themselves for these and other duties or submit to absorption by other departments. We have got to run faster or get run over and that is all there is to it.

The real division of the functions delegated by citizens of municipalities to their governments are the preservation of public safety and public order, which includes the police and fire departments and the courts; the control of public education, the construction and administration of public works, including either the supervision or operation of the systems of transportation, the administration of the public finances and the control of all the activities concerned with the comfort and the physical and moral well-being of the public. The overwhelming majority of this last group of activities belong by right to the health departments. No one disputes very much that the health department should supervise how we live, what we eat and drink, what we breathe and where we work. Why then should it not also supervise where we dwell?

When we come to consider the present situation and the future development of housing in small towns and villages we have quite a different condition to deal with than in large places and one that calls urgently for action.

Everyone familiar with the facts knows that there is more need for housing reform in small towns than in big ones. In the first place their aggregate population exceeds that of the cities. In the second place they have less efficient agencies for the control of housing and in most cases no control at all.

Now all have at least the rudimentary beginnings of health organization and practically none of them have building departments. Here is a great opportunity. There is a rapidly developing mass of legislation defining the duties and broadening the authority of local health organizations, and of necessity the

authority granted is couched in very general terms under the general police power. The National Housing Association can do no more useful thing than to extend the knowledge of the fundamental doctrines of housing reform among the health authorities of small communities and inspire and encourage them to make at least a beginning at adding the application of sound principles of housing reform to their other activities.

The progress will be slow at first but if pushed the movement will be bound to grow until we get the beginning of that revolution from the bottom upon which, in my opinion, the realization of our hopes for good national housing must depend.

THE ALLEY PROBLEM

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MR. LAWRENCE VEILLER, in a paper presented in 1911 to the Third National Conference on City Planning, pronounced the alley "Both a blessing and a curse." His statement is true to-day, but there seems good reason to believe that the abundance of the blessing has not been fully realized and to anticipate that the conditions which are responsible for the curse will be removed. To abolish the alley, an inherently good thing, because of its abuse or neglect, rather than to redeem it, and equip it for its proper service, is moral cowardice.

A fundamental relation exists between the dimensions, shape and distribution of building lots in a given ground area and the number and types of dwellings which can be profitably erected upon that area. As Dr. James Ford has well said, the 25 feet by 100 feet lot is "wasteful of land at the rear" and "parsimonious of land at the sides of houses." The standardization of lots and streets, by no means accomplished as yet, also involves the question whether alleys shall or shall not be provided in a city plan.

DEFINITION OF AN ALLEY

An alley, for the purpose of this paper, may be defined as a minor public thoroughfare, not exceeding twenty feet in width, extending through a block, in order to afford access of light and ventilation to the

rear of the premises which abut upon it, as well as a suitable location for the public service mains.

The alley problem, then, is the broad inquiry whether or not a back passage of this kind justifies its existence, all things considered. If it does, alleys should be provided in future subdivisions; if it does not, they should be omitted.

The recognized disadvantages which come from alleys when their surfaces are unclean and unpaved, as well as the obvious tendency to build dwellings abutting upon them, all give rise to questions of their improvement from the sanitary and housing standpoints.

There is in some quarters a disposition to discuss the value of alleys solely from the point of view of cost of ground thus occupied and the expense of maintaining alley spaces after they are provided, ignoring, to some extent, the weighty considerations of general convenience and sanitary advantage which alleys afford.

BASIC CONSIDERATIONS

There are certain basic considerations in regard to alleys for which general assent can, I think, be gained.

First: Every alley must be dedicated to public use as are the public streets. Most of the acute evils which prevail in alley spaces are caused by inadequate power on the part of public officials to control such spaces. Municipal authorities must have authority to grade, pave, clean, light and police every space subject to the use of the public.

Second: Every alley must extend through the block from street to street. The disadvantages of blind alleys, even if provided with a large turning space, are self-evident, as are those of crooked alleys, especially with respect to police control.

Third: Every alley must have a uniform width of not less than sixteen feet. This width is necessary for the passing of vehicles and is not quite sufficient for the convenient driving of automobiles into a garage.

Fourth: That any subdivision of land now made is likely, after a period of years, to feel the effects of a tendency to intensive occupation caused by the increase of population, the extension of commerce, and the development of industry.

THE PREVALENCE OF ALLEYS

Alleys exist in more than two thirds of the cities of the United States and are still laid out in additions to all these cities with the exception of two or three. The great example of their non-existence is the city of New York, where they are intentionally absent. I am unaware of any recently planned cities in which alleys have not been provided, although doubtless there are a few such.

It is notable that in those American cities, which show most careful consideration of the principles of city planning, such as Washington, Zion City, Savannah, Ga., and Vandergrift, Pa., alleys have been provided.

Savannah, Ga., is the earliest of these cities in point of time, having been laid out by Governor Oglethorpe in 1733. One of the contemporaries of Governor Oglethorpe was Francis Moore, "Keeper of the Stores," who wrote: "All houses stand on large lots, 60 feet in front by 90 feet in depth; each lot has a fore and a back street."

Washington, as designed by L'Enfant, has a longitudinal alley 10 feet to 15 feet in width in each of the long narrow blocks, although these alleys do not, in

all cases, extend through to the end streets, but sometimes terminate in a cross alley at right angles, the system assuming the form of a capital H. Each block or square of irregular form has an alley entering the block from its principal street frontage, often passing out at an opposite street and frequently affording access to a broad (30 feet) alley 200 feet or 300 feet long in the interior of the block. In many examples, diagonal branches extend from the interior main alley toward the corners of the block and have enlargements at their extremities in which a wagon may be turned.

Zion City, Ill., designed in 1900 for Father Dowie with painstaking care by Burton J. Ashley, has a longitudinal alley in each block. These alleys are 25 feet in width, except that where large main sewers or the presence of freight tracks made it necessary, they were enlarged to 35 feet, or more. This plan is the most consistent example of the adaptation of varying widths to the necessities indicated by underground or surface utilities.

In reply to a questionnaire addressed to a number of cities, Mr. Ashley received answers from forty-nine with respect to alley widths, indicating a marked predilection for alleys of 16 feet to 20 feet in width. The average of all answers received was 19.2 feet for a preferential width.

Vandergrift, Pa., laid out by Frederick Law Olmsted in 1895, is an excellent example of thoroughness in designing a small city. The street lines conform to the surface contours, and alleys 15 feet to 20 feet wide are provided in each block.

Detroit claims to have the most complete system of alleys of any American city.

Chicago has a comprehensive system of alleys, 16 feet to 20 feet in width, which are laid out through the blocks in a longitudinal direction. In some cases these extend through successive blocks for long distances without intervening obstacles.

Rochester and Kansas City have alleys in their older portions, but discourage them in new subdivisions.

Cleveland likewise has alleys in the old subdivisions, but it does not allow them to be laid out at the present time.

Baltimore has an alley system throughout.

In Philadelphia, alleys are generally lacking in the old portion, but a system of interior courts on which dwellings front has been developed with bad results. In the newer portions of the city, the mincing up of the ground has been carried to extreme limits, the subdivisions showing lots of 42 feet in depth and 14 feet in width. The houses have yards of only 144 square feet, which abut upon an alley of only 3 feet in width, entirely inadequate, of course, to accomplish the reasonable purposes of a rear passage.

If time and space gave opportunity, hundreds of other cities in which alleys exist could be named.

ADVANTAGES OF ALLEYS

The self-evident advantage of alleys is that they afford facility of access to the rear of premises for the supplying of goods, as fuel, milk, groceries, etc., as well as for the removal of waste materials, such as garbage, ashes, rubbish and the like.

Attention has been directed for a year or two past to the tremendous distance traveled by the delivery wagon in making its ordinary deliveries, as well as to

the waste of effort in the collection of household refuse where alleys are not available. It should be observed that the services referred to can be performed with a saving of 50 per cent in distance traveled where alleys exist, as contrasted with blocks in which the service must be performed by street access only.

In addition to the marked saving of distance, as well as the convenience effected by alley access, it must be granted that the natural and desirable place of entrance of all those who perform services of this nature, for example, the ice-man, is at the rear of the building rather than at the front.

One of the advantages of an alley system, hitherto little realized, is the convenience and speed with which fire-fighting apparatus may through it be brought into use. Experienced fire fighters emphasize the importance of this consideration by which the access to a burning building can be had from the alley, as well as from the street, resulting in a saving of time, an element of the utmost importance in securing control of a conflagration.

Another advantage of alleys is that they afford more convenient access for the storage of vehicles on the rear of the lot. The man who has a small business, requiring only a single delivery wagon, would much prefer to keep that wagon, whether it be horse or motor propelled, at the rear of his lot. The convenience of the user of an automobile is greatly enhanced by being able to store it on his own premises instead of at a public garage. The statistics for 1914 show that 2,070,000 licensed motor vehicles are now used in the United States, of which a careful estimate places the number used for pleasure and business, aside from

heavy hauling, as 1,800,000. The tendency of this number to tremendous increase is apparent.

If the relation of the width of private driveways, from front to rear of a lot, to the depth of alley, is a fixed one, let us say one to two, and such private driveways occur with a spacing equal to the depth of the lot, the area required for the driveways and the alley is identical.

As an illustration, assuming lots to be 50 feet by 150 feet, with a driveway for every third lot, that is 150 feet apart, the space required for such driveways 8 feet in width is the same as that required for an alley 16 feet wide between two series of such lots.

No one can question that the day is near at hand when automobile storage on every third lot will be deemed a necessity; hence the argument in favor of providing the alley for this use is much more powerful than it would at first appear. It is, of course, desirable to do away with the private driveway crossing the sidewalk and curb, as well as to avoid entrance of automobiles in the middle of the block into the street in which vehicles are passing.

The use of the alley space for convenient location of public utilities, such as main and service sewers, water mains, gas mains, ducts and wires for telephone, telegraph, lighting and power services, has long been recognized by engineers. Perhaps the most comprehensive study looking to this utilization of the alley spaces was that made by Burton J. Ashley in connection with the design of Zion City, already noted.

As in the case of the supply of household necessities and the removal of waste materials, the more convenient and natural means of access for water and

sewer connections, ducts and wires is at the rear of the building rather than at the front.

The great incidental advantage of the relief of streets from frequent excavating is one that will appeal at once to the interest of the general public. There has been for twenty years past a growing feeling that the public was put to unnecessary inconvenience, and great damage to street pavements, by the frequent excavations made necessary in making connections from buildings under course of construction, to the sewer, water, gas and other mains in the streets. It is quite impracticable to fully anticipate the proper location of these service lateral connections when the street mains are laid, and the public inconvenience by frequent cuts in pavements, to say nothing of the expense and danger incident thereto, cannot be obviated if the large mains are generally laid in the streets rather than in alleys provided for that purpose. This consideration is especially to be noted where considerable traffic exists or where street car lines involve additional difficulties of excavation and traffic.

In addition to the valid arguments already set forth to show why alleys are needed, the principal reason for their existence is still to be urged. We require an alley through the center of every city block, because by this means alone is it possible to assure for the future a sufficiency of light and air in the middle of the block.

The insidious progress of lot overcrowding is evident in all our cities. We do not need to study Boston, New York, Philadelphia, or Chicago, to see its baneful influence. Everywhere we can observe the replacement of the single dwelling by the multiple dwelling or by store, office or factory buildings. If the existing

building is not torn down we note that first the side and front spaces are subject to encroachment; then extensions are made toward the rear; finally the open space is wiped out by the occupation of the whole or nearly the whole of the lot.

In lot after lot the congestive change occurs. The large space in the middle of the block, to which all lots contributed their quota at first, is divided into a number of small spaces, and finally these disappear.

The last and only final line of defense in the interest of sunshine and air circulation is the alley. If this be absent, the fight for breathing space is lost.

OBJECTIONS TO ALLEYS

The objections made to alleys are:

First: That the ground cannot be afforded for this use;

Second: That the expenditure necessary to pave, clean, police and light an alley system is not warranted.

These objections have as their basis the question of expense only.

As to the first, it is my belief that the area set apart for alley purposes is better utilized than that taken for any part of the lot itself, and is second only in importance to that portion of the ground area needed for the street, which, we may remark, is often of unnecessary width.

Admitting that alleys in many cases are at present a marked nuisance for lack of proper maintenance, I can only urge the necessity that they be paved as a prerequisite to proper cleaning. That they demand lighting and policing is of course evident, but this expense is much less in the case of alleys extending

directly through the square than those which have offsets or bends in their course.

CONCLUSION

For the safeguarding of light and air in city blocks in our own day, and for the preservation of these essentials of sanitation in the days that are to come, let us stimulate an appreciation of the benefits conferred by alleys and by providing suitable equipment and adequate care minimize their disadvantages.

DISCUSSION

THE ALLEY PROBLEM

H. M. BRACKEN, M.D., Presiding

MAURICE R. SCHARFF, *Principal Assistant Engineer with Morris Knowles, Consulting Engineer, Pittsburgh, Penna.:*

“The Alley Problem” is not a problem, but a number of problems, and the speaker would like to emphasize this in connection with what he contributes to this discussion. Not only do the alleys which already exist present many practical problems of housing, sanitation, and policing; but the fundamental abstract question of the general desirability of alleys presents entirely different aspects according as we consider it in connection with,

1. Business districts.
2. High class or selected residential districts.
3. Unsewered towns.
4. Houses built in rows or blocks, and tenement districts.
5. Moderate or low cost residential districts.

Although the speaker refers to this as an abstract question, he does not by any means intend to imply that it is academic. On the contrary, he considers it as the most important of all the problems connected with the alley, and for this reason will confine to it most of what he has to say.

There will probably be no difference of opinion relative to the desirability of alleys in business districts. The importance of traffic on main thoroughfares, and the necessity of confining loading and unloading operations to back doors outweigh all other considerations. Nor do many of the disadvantages of alleys under other conditions apply to this situation.

There can be little argument, also, regarding the highest class of residential districts, and the solution may be either way, according to the taste and the pocketbook of the residents, without affecting the housing situation. Our most prosperous citizens may ordinarily be depended upon to maintain their premises in a sanitary and attractive condition, and to insist on and co-operate in similar care of adjacent alleys. If, then, they wish to enjoy the luxury of keeping the street in front clear of the standing vehicles of tradesmen, and of requiring back door deliveries by means of well paved, well kept and lighted alleys, no one can object to their paying the extra cost which they can well afford.

In unsewered communities, also, the alley is a sanitary factor for which no satisfactory substitute has yet been proposed. It is true, there should be no unsewered communities in cities, and all should urge the abolition of outdoor privies and vaults in sewered towns, as has already been argued before this Conference. But there are certain types of short-lived communities in which the cost of sewerage, in spite of its desirability, cannot be justified. Such, for example, are construction camps, lasting a few months or a year or two; mining towns, at mines on more or less short-lived seams of coal or ore; lumber towns, built to last until the saw-mill exhausts a limited quantity of timber,

etc. Under such circumstances, the fixed charge on a sewerage system may so far exceed the cost of operating an only slightly less satisfactory sanitary dry closet system that the excess appears an unjustifiable economic waste. The practical operation of such a sanitary dry closet system makes alleys, in the opinion of the speaker, an unavoidable necessity, despite their admitted disadvantages.

When houses are built in rows or blocks, and as in tenement districts, it is ordinarily assumed that alleys are a necessary evil, on account of the requirements of waste removal. With this assumption, the speaker agrees, if no provision is made in construction for special passages through the block to the rear, for this purpose. He believes, however, that such passages can be constructed without difficulty, so as to make the problem in these cases practically identical with that in sewered moderate or low cost residential communities, with detached single or double dwellings. As it is this last case on which the greatest difference of opinion exists, and as the speaker believes this to be the ideal toward which American housing development is trending, he will confine to it the remainder of this discussion.

In sewered residential communities of moderate cost, where houses are built separate or in small blocks, alleys have been commonly used in American practice, and are in fact required by ordinance in many municipalities. There are exceptions, of course, but this is the general rule, both in suburban subdivisions and in industrial villages. The comparative lack of any literature on the subject and of serious *de novo* consideration of the desirability of alleys in such cases, suggests that their inclusion has been largely a matter of habit, rather

than conviction. In fact, the speaker believes that an unprejudiced consideration of the arguments for and against alleys in most such cases cannot fail to lead to the conclusion that they are unnecessary, uneconomical, and wholly undesirable.

Alleys are unnecessary, as each purpose for which they are commonly used may be accomplished as well, or better, without them. Delivery of materials and removal of wastes by means of passages along the side of the house present no practical difficulties, and, in the case of waste removal, collection at the front of the house makes somewhat easier efficient supervision and safeguards against careless handling. It is true that a charge is sometimes made for delivering coal from the street to the dwelling, but this is itself an economic factor, and may be considered in that connection. It is no argument for the necessity of alleys, and, in fact, this extra cost shows a compensating advantage through the avoidance of the objectionable alternatives of dumping coal at the alley line, to be removed later at the convenience of the householder, or the construction of coal sheds at the alley.

The location of poles and wires at the rear lot lines, rather than on the streets, may be desirable, but such location can be accomplished equally well by the reservation of an easement at the rear of abutting lots. Similarly the flexibility due to the possibility of converting alleys into minor streets, in case of change in character and congestion of traffic, if important, may be assured by the maintenance of lot depths, and the reservation of an easement. And the increased open space between backs of dwellings may be far better obtained by maintaining lot depths and enforcing building restrictions, so as to secure an equal area of

grass or garden plot, than by a paved surface which is the most expensive and least desirable form of open space.

These considerations establish so conclusively the lack of necessity of the alley, that the speaker believes he can justly apply to all such rear lanes the name which Mr. Ihlder noticed on an alley signboard when a party of us were in Birmingham, England, a year ago—"Needless Alley."

In considering the relative economy of developments with and without alleys, it is useful to consider only alleys which are paved and maintained as well as the adjacent streets. It is true that unpaved alleys on cheap, level land can be provided at small cost, and that systematic neglect may reduce maintenance costs to zero. But such an alley is expensive at any cost, and takes its payment from the community in disease, immorality and crime. Dollars and cents comparisons on this basis are therefore meaningless.

With well paved, properly maintained alleys, the cost of improvement is increased, rather than decreased; and when the value of the land is considered—the extra depth would embrace the value of the lot more than the alley does, or it might be used so as to obtain a greater number of lots of the original depth from the same area—a substantial increase in cost of development results. The speaker had occasion to investigate this subject recently in connection with a proposed industrial town development, and for this purpose prepared the following estimate for a level ten-acre plot, laid out with thirty-five-foot lots and a rectangular system of sixty-foot streets and sixteen-foot alleys, paved with concrete.

ADDITIONAL DEVELOPMENT COST

Paving.....	\$3640
Fencing.....	410
Lighting.....	250
	<hr/>
	\$4300
* Saving on sewers, water and gas pipes due to location in alley'	1200
	<hr/>
Net additional cost of construction.....	\$3100
Land at \$.15 per sq. ft.....	1230
	<hr/>
Total.....	\$4330
Total per lot.....	55.51

ADDITIONAL ANNUAL COST†

Interest on land at 6 per cent.....	\$74
Interest and depreciation on construction at 8 per cent.....	248
Lighting, 6 lamps at \$20.....	120
Cleaning, at \$.50 per 1000 sq. yds.....	80
	<hr/>
Total.....	\$522 †
Total per lot.....	6.70†
Monthly total per lot.....	.56†

These figures confirm the opinion expressed to the speaker by the superintendent of a mining company in Northern Michigan, that it would often be cheaper for the company or community to pay the extra twenty-five cents per ton customarily charged for delivering coal to the cellar, rather than provide and keep alleys in first class condition.

* This saving might be secured, and eliminated from this comparison, by laying pipes in an easement in the rear of lots, instead of in alleys.

† Do not include any proportion of overhead or administrative charges, or any allowance for cost of policing, building inspection, sanitary inspection, etc.

All of the considerations heretofore have been based on the assumption that alleys are kept in first class condition. But everyone knows how difficult, how nearly impossible this is. It is unnecessary to expand on the character of the alley as a "neutral space," and collector of the filth for which the householder feels that his responsibility has ceased when he has thrown it over the back fence. The very fact of this discussion of the alley problem emphasizes the variety of nuisance that has led one author to refer to alleys as "elongated Gehennas."

If any necessity were served or any substantial economy attained by alleys, or if any compensating advantages existed, they would be desirable despite their potential dangers, and we would be justified in making the effort to maintain alleys in satisfactory condition and to run all the risks attached to our customary failure. But no such necessity, economy or advantage does exist, even nearly sufficient to justify such an attitude, and the conclusion appears to the speaker inevitable that alleys in residential districts of moderate cost are not only unnecessary and uneconomical, but generally undesirable.

GEORGE B. YOUNG, M.D., *United States Health Service:*

I am strongly in favor of the alley. It is true the alley increases total original cost of paving, but if the alleys are utilized, as they should be, for laying lines of the sewer, water, gas and electricity and telephone systems, the total maintenance cost of street paving is very greatly reduced.

It is true that neglected alleys are a frequent source of nuisance, but that is not the fault of the alley, but of the municipal administration. It is true that it

costs something to clean the alleys, but this is more than compensated for by the advantages they give.

The alley in apartment house sections gives ready access for deliveries and greatly expedites them, because the wagon drivers and delivery boys can work both sides rapidly and safely, which they cannot do both sides of a street.

The alley in residence sections gives facilities for garage and stable access to each lot holder.

The alley in business sections greatly facilitates deliveries and prevents blocking curb and sidewalk by them. It also enables owners to secure the maximum occupation of lot without relinquishing natural light and ventilation on the rear. An important thing in this connection is that with an alley you can more rapidly enforce direct lighting and ventilation of lunch room and restaurant kitchens.

Everywhere rubbish and garbage collection can be more economically and inoffensively done by way of the alley than by way of the street.

The alley as a playground has been both praised and condemned. I am strongly for it. Large cities are getting playgrounds but smaller cities are far behind and all sorts of cities acquire children faster than they do playgrounds. Motor traffic has practically closed most streets to small children. In tens of thousands the alley is their only home of refuge.

SECTION MEETINGS

LAWS AND ADMINISTRATION

CHARLES B. BALL, Presiding

OUTDOOR CLOSETS AND VAULTS, WHY THEY SHOULD BE ABOLISHED

EMILY W. DINWIDDIE

IN 1887, nearly thirty years ago, New York already had a law that no privy or vault should be allowed in connection with a tenement house except where unavoidable and where a permit was granted by the Board of Health. Removal of a number of privies was made under this law, although unfortunately substitution of sewer-connected privy sinks, which were not much better, was one of the methods of replacement allowed in the city in early days, though forbidden now.

Since that time there has developed throughout the country a steadily growing movement, first to prohibit new vaults and second to abolish existing ones, wherever a connection with a sewer is possible. Box privies in the cities which have this type are coming under the same condemnation as the vaults, being only one degree less bad. To-day community after community reports more or less effective laws or ordinances directed against privies.

The Toronto Health Department *Bulletin* for January, 1915, states that Toronto has had 12,291 vaults abolished in two years up to December, 1914. This is a high record but Philadelphia claims a better,

15,661 in two years. Pittsburgh also has abolished great numbers of privies.

Some opposition by property owners on grounds of expense is usual. In New York there have been attacks on each successive law, not only on the first one directed against privies, but also on the later more stringent one against privy sinks, or school sinks as they are called in that city.

The famous Katie Moeschen test case was fought out up to the Supreme Court. The plaintiff, a widow, objected to being compelled to substitute modern water-closets for a school sink belonging to a tenement owned by her and heavily mortgaged. She had on her side the arguments that the particular school sink in question was kept as clean as an appliance of the kind could be, and that the school sink was a supposed improvement on the older privy, being an iron trough set in a masonry vault, with a screened sewer-connection at one end, and with a water flush at the other, which could be operated by the janitor, to remove the liquid contents of the trough. But the case was decided against Mrs. Moeschen and this school sink had to go with thousands of other privy sinks and privies in the city.

On January 1, 1903, the City Tenement House Department reported 7000 school sinks and privies belonging to tenement houses in New York. At the end of the second quarter of 1915, only 142 are reported on tenement premises. In the semi-rural sections of the city where sewers are not yet laid, the substitution cannot be required. Thus some still remain, even in tenement house properties.

As to yard water-closets there has been progress, but this has not been so great as in the matter of privies, against which, naturally, sentiment has been stronger.

The requirement that a new tenement house must have an individual water-closet for each family *within its own apartment*, or within each apartment of more than one or two rooms, has become common. We find it, for example, in the California, Indiana, Massachusetts, New York and New Jersey state laws, and applying to such cities as Chicago, Columbus, Cleveland, Duluth, Grand Rapids, Louisville, and many others, large and small.

In New York the Tenement House Department not only prohibits yard water-closets for new tenements, but also will not permit new yard water-closets for existing tenement houses. But removal of yard water-closets already constructed, so far as I know, is not required anywhere. I have not been able to find any law, ordinance or departmental ruling to that effect.

We see the tendency toward the abolition of privies and the limitation of yard water-closets, but, with regret, we see also that the work is by no means completed in some even of our largest cities. St. Louis, according to the National Housing Association, recently reported 20,000 privies or privy sinks, 80 per cent of which were on sewered streets; Philadelphia had 20,000, of which about 10,000 had sewers accessible, and Minneapolis had 17,000.

The necessity for the removal of privies and privy sinks is obvious. The evidence against them is overwhelming, and is so familiar that I hardly need to refer to it.

There is the infectious disease objection, the carrying of germs from filth to food by flies and other insects, and rats and vermin passing from the toilets in the congested yards to the adjoining windows where the family meals are prepared, or to the restaurant kitchen, the bakery, the ice cream factory, or the baby's bottle.

There is the contamination of water supply in some instances from the privy sinks. There was a bad case in New York some years ago. The Department of Health made an investigation to find the cause of the prevalence of typhoid fever in a certain tenement house and discovered that the pump which forced the water up to the roof tank of the house, from which came the supply for both drinking and washing purposes, was literally pumping up the contents of the school sink in the yard into the water pipes of the building.

There is also to be considered the injury to health and self-respect from the dirtiness and offensiveness of these filthy arrangements for the disposal of human waste. The recent Phipps Institute Housing Report, just out this year, says of Philadelphia:

"The one feature which stands out in the list of nuisances is the frequent complaint of odors from privies."

This has a familiar sound to housing and social workers. I have seen families in different cities who kept their windows closed on stiflingly hot days, because they could not stand the odors. And I know the utter discouragement to the housewife in trying to keep up any standard of living under such circumstances. It is only too natural for her to say: "What's the use!" and let everything go.

The city problem is different from the rural situation where the toilet is likely to be at a distance from the house to which it belongs and from other houses, and is less often used by more than one family, making the clean tenants suffer from the habits of the dirty ones and the negligence of the landlord.

The privy seems to be more often neglected than almost any other part of housing properties. If we go through the housing reports, we notice the frequency

of records of bad repair of privies, with leakage of vaults, broken seats, over-flowing vaults and so on. The neglect is probably partly due to the offensiveness of dealing with them, although it is true, also, that privies are likely to be old, to be used by poor tenants, and in some cases, too, are under condemnation by law or ordinance, so that the owner does not wish to spend any money on them.

I have stated some objections to privies, especially, whether of the vault or the box or pail type. But there are other undesirable features, which the privies have in common with yard water-closets. One of these is the lack of privacy. The access to the yard toilet in a congested city block is likely to be visible from all the back windows of the house to which it belongs and of adjoining houses. The toilets are often in a row with only thin partitions between the shelters. Both day and night use of such closets by a mixed, crowded tenement population of varying ages and sexes and degrees of decency is open to grave objections. And refusal by the sensitive members of the group to use them except where they can secure some degree of semi-privacy has serious effect upon health.

If lack of privacy is a defect of the yard closet or privy, so also is inconvenience—the difficulty of access in bad weather, and for small children and the aged and the sick, the lack of heat for the shelter in winter, the distance from the apartment in the case of skyscraper tenements with families living on the fifth or sixth floors—all resulting in neglect of health, in retaining of filth in the over-crowded, poorly ventilated tenement rooms, or in the disgusting use of halls, roofs and vacant apartments sometimes seen.

The yard water-closets as well as the water-flushed school sinks have further the special objection of freez-

ing in winter, with burst pipes and unpleasantness of every kind.

As compared with the indoor fixtures the yard closet has the disadvantage of being obliged to have the trap below the floor, with a resulting long fouling surface above the trap. And the connection from the underground valve to the soil pipe to carry back the water from the exposed portions may be a serious danger to the purity of the water supply of the house.

I do not see how we can conscientiously refuse to consider this whole subject, and consider it very seriously, so long as our condition in America is what it is to-day. We have too many communities where the vault is omnipresent and typhoid and other intestinal diseases are endemic.

My own feeling is that it is an outrage for any city to permit new or existing privy vaults or privy sinks for either tenement houses or any other dwellings where access to a sewer is possible, and that no tenement houses should be allowed to be supplied with privies. If sewers have not been provided, tenements should not be permitted. This ought to be considered an axiom.

I think also that the law should not permit new yard water-closets for tenements or dwellings in cities except where the climate prevents freezing. I believe, too, that educational work ought to be done in relation to the need for provision for privacy and for access in bad weather, or even that these important matters should be regulated by legislative control.

I think that existing yard water-closets ought to be abolished for tall tenements housing a number of families. We are sure to have abominable conditions where five- or six-story multiple dwellings, having sometimes as many as four or more families on a floor, are dependent on water-closets in the yard.

Certainly, we should have reached the point to-day of being prepared to deal unsparingly with these evils. It may be that in another generation or two advancing sanitary standards will have brought about in cities at least the total abolition of all types of yard toilets.

DISCUSSION

MRS. JOHANNA VON WAGNER:

There is no need of privy vaults. No matter how well constructed, they are a menace to health.

There are several substitutes for vaults, and one of them is the chemical closet. Wherever there is no sewerage system the chemical closet can be used. It can be set up in any part of the house, which is important for sick or old people, and also does away with exposure to bad or cold weather. It insures privacy, comfort and convenience. The room in which it is placed can be kept warm, well ventilated and clean. It destroys all germs and also eliminates one of the greatest breeding places of flies—the outdoor vault.

It can be used for schools, country hotels, railroad stations and construction camps.

Sanitary chemical closets are on the market made in several forms, by at least three different companies. The Hygienic Laboratory of the Public Health and Marine Hospital Service has described the best chemical disinfectant in Bulletin No. 82.

The cost of a chemical closet need not frighten anyone, as it is less than one case of typhoid fever.

Let us hope that in the near future all human and animal wastes will be taken care of in such an efficient way as to render them harmless and prevent forever epidemics of typhoid fever, smallpox, cholera, etc.

CONSTRUCTION AND MANAGEMENT

JOHN IHLDER, Presiding

LAND SUBDIVISION FROM THE POINT OF VIEW OF A DEVELOPMENT COMPANY

FREDERICK LAW OLNSTED

Landscape Architect, Brookline

THERE seems to be a thorough agreement among those interested in housing and in city planning that deep and narrow lots tend to the development of bad housing conditions, whether in the form of deep houses with dark interior rooms or in the form of rear dwellings or both. I am personally an advocate of shallower lots for inexpensive housing than are customary in most American cities. But in the discussion at Detroit I took issue with a more enthusiastic advocate of wider lots, who seemed not to appreciate the relatively high economic cost of extra width in a lot as compared with mere depth.

Of course we all know that one of the important elements of cost represented in the market price of a lot is the cost of improving the street upon which it abuts, and it is obvious that this unavoidable element of cost is substantially proportionate to the frontage or width of the lot and is wholly unaffected by its depth. A lot fifty feet wide is chargeable with just twice as large a share in the cost of constructing the street on

which it abuts as a lot twenty-five feet wide. And it is impossible to dodge this increase by any reduction in the depth of the lot, for it does not cost one cent less to build the street in front of a lot fifty feet deep than in front of one two hundred feet deep.

On the other hand the land occupied by a lot, and by the portion of the street which gives access to it, cost a definite amount per square foot before the development took place, and you can double the width of the lot without increasing this element of cost provided you halve the depth, as measured from the middle of the street. Certain other elements of cost beside that of the raw land are also chargeable against a lot approximately in proportion to its area as thus measured.

It will readily be seen that where the elements of cost which depend solely upon the frontage are relatively high, any increase in width of lot must involve a serious sacrifice of depth in order to get a lot of the same cost; whereas in those cases where the frontage costs are low as compared with the square foot costs, the desirable extra width can be secured at a smaller sacrifice. One of the important points, therefore, in determining what shape of lot will give the greatest value for a given expenditure, is the relation between the front-foot costs and the square-foot costs. As a convenient index for expressing this relation in figures I have adopted the following arbitrary convention, viz.: the cost per front foot in dollars divided by the cost per square foot in cents. Thus a development in which the lots had cost 5 cents a square foot plus \$5 a front foot would have an index figure of 1.0. The same index figure would apply to a development in which the lots had cost 10 cents a square foot plus

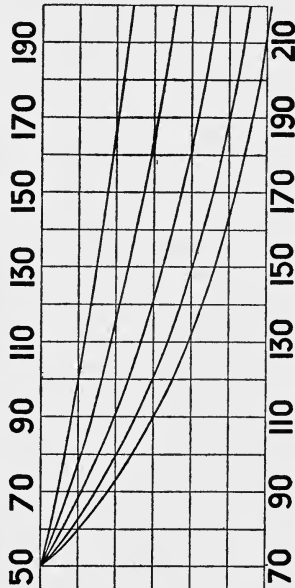
\$10 a front foot; while a development in which the cost had been 5 cents a square foot plus \$10 a front foot would have an index figure of 2.0, and one in which the cost had been 10 cents a square foot plus \$5 a front foot would have 0.5 for an index figure.

If time permits I will attempt to analyze these two groups of costs in dollars and cents, for typical cases, but first I will ask you to take certain index figures for granted and see to what conclusions they lead. I believe that the index figures of tolerably well-conducted and normal land developments on the outskirts of American cities tend to hover in the vicinity of 1.0 or somewhat above it. This tendency to uniformity of index figure is because land so situated as to command a high price is generally developed in a more thorough and costly manner than cheap land. Where land is very cheap or where the community demands an exceptionally costly development, the index figure may run up to 2.0 or 3.0 or even higher. Where the undeveloped land is held at a very high price, or where an exceptionally cheap improvement is enough to sell the lots, the index figure may fall to 0.5 or even 0.25; and of course, in the exceptional case of a piece of land which has lain undeveloped while a large city has grown up about it, the index figure may be almost indefinitely reduced.

I have prepared a chart which takes as a starting point a lot of minimum depth, fifty feet deep, on a forty-foot local street. The width of this shallow lot is taken as a standard of measurement and is called 100 per cent. Its width in feet may be anything you choose to assume without affecting the use of the chart. Starting from the rear corner of this lot are curves which show, for various index figures, by what per-

DEPTH OF LOT IN FEET ASSUMING THAT IT FRONTS ON A 40 FOOT LOCAL STREET

COST[†] FOR SAME WIDTH	WIDTH[*] FOR SAME COST
100%	100%
111%	90%
125%	80%
143%	70%
166%	60%
200%	50%
250%	40%



**INDEX
FIGURES
OF
CURVES**

DEPTH OF LOT IN FEET MEASURED FROM THE CENTER LINE OF THE STREET

[†] Increase of cost of lot (in percentages of the cost of a lot 50 feet deep on a 40 foot street) which will result from increasing the depth to various amounts while keeping the width unchanged.

^{*} Width of lot (in percentages of width assumed for a lot 50 feet deep on a 40 foot street) which will make the total cost the same for various depths.

centage the width of the lot must be reduced as its depth is increased in order to keep its total cost the same, and the percentage by which the cost will be increased if the width remains the same. Thus, for the normal index curve of 1.0, if the fifty-foot depth is increased to seventy-five feet, the lot width must be decreased to 87 per cent of the original unit, or the cost increased 15 per cent; if the depth is increased to a hundred feet, the width must be reduced to 77 per cent, or the cost increased 30 per cent; and so on.

Let us read the chart another way, still using the index curve, 1.0. It shows that you can take your choice, for the same money, between a 50-foot square lot, or one 45 feet wide and 69 feet deep, or one 40 feet wide and 92 feet deep, or one 35 feet wide and 123 feet deep, or one 30 feet wide and 164 feet deep. Now I think most of us would agree that if our pocket-books permitted us precisely this series of lots from which to choose a place of residence, we should *not* choose the square lot 50 feet wide. Much as I loathe the tiresome familiar rows of detached houses squeezed on to 30-foot and 40-foot lots, I should not hesitate a moment to give up the difference between 50 feet and 40 feet of width for the sake of the extra 42 feet of depth. If I were very strongly set on raising my own vegetables or flowers or on having a safe enclosed yard for my children to play in, I should be strongly inclined to a 30-foot lot 164 feet deep, and in that case I should be tempted to build my house the full width of the lot with blank party walls on the sides and to advise my neighbors to do the same.

But wherever in the scale any one's personal preference would land him, I think these figures go to show that there is more of sound economics and good sense

behind the customary deep proportioning of lots and less of stupid and arbitrary fashion than some of us reformers are apt to assume.

But suppose the conditions of the development and of our pocketbooks confine us to a lot of half these sizes, still using the index curve 1.0. We should then have to choose out of a series like this: a lot 25 feet wide and 50 feet deep, which is possible but cramped for a semi-detached house; or a lot 20 feet wide by 92 feet deep, which is adapted for a comfortable house in a row; or one 15 feet wide by 164 feet deep, which means a distinctly poorer house in a row with a larger back yard but of a worse shape; or a half-interest in a 40 by 92-foot lot, which means a two-family house with small grounds.

If we are squeezed down by financial considerations to a series on the index curve of 1.0 starting with a lot 15 feet wide by 50 feet deep, which is near the Philadelphia standard for small row-houses, we stop very nearly where we begin, as far as concerns single-family houses, although it is debatable whether some people wouldn't prefer a $12\frac{1}{2}$ foot lot 84 feet deep. The next alternative in this series is plainly a multi-family house.

I think it is obvious that on the assumption of this fairly normal index figure of 1.0 there is a decided advantage in lot depths upwards of 90 feet, except where there is a determination to provide single-family houses at a low price in a locality where land and development costs are both high. For that case the Philadelphia type of lots, both shallow and narrow, seems to be the only solution.

A glance at the chart is enough to show that for any index figure upwards of 1.0 there is a still heavier penalty for width of lot. With an index figure of 4.0 a

lot 45 feet wide by 102 feet deep, or one 40 feet wide by 167 feet deep, would cost no more than one 50 feet square. It must be remembered, however, that such high index figures seldom occur except where land is relatively very cheap. In such cases the development cost is apt to be so adjusted to the pocketbooks of the purchasers that they can afford to get the width they need and incidentally they are given about all the depth they seem to want.

When we come to consider lots where the index is considerably below 1.0 the case is different, but not as much different as we might expect. Taking the index curve of 0.25 on the diagram, which represents, you will remember, the cases where there is 25 cents of cost chargeable against each front foot for every cent chargeable against each square foot, we find that what we save by reducing the width 10 per cent (instead of enabling us to increase the depth from 50 feet to 102 feet as with an index of 4.0) enables us to increase it only to 60 feet, and a reduction of 20 per cent in width would compensate for increasing the depth only to 74 feet. For a detached house I would rather have a lot 40 feet wide by 74 feet deep than one 100 feet deep and 33 feet wide (another alternative in the same series), but there are many who would not agree with me.

At the Detroit Conference Mr. Bartholomew urged the great desirability of lots $33\frac{1}{3}$ feet wide instead of the 25 by 100-foot lots customary in Newark. Let us see just what this increase would involve. Assuming a 40-foot local street, as I have done throughout, and using the index curve 1.0, this would mean decreasing the depth of the lots to a little less than 50 feet, or, if the depth were to remain 100 feet, it would mean

increasing their cost one third. If the index number were 0.25, however, as it might possibly be in parts of Newark, with very sketchy street construction and high land prices, the increase of cost by adding to the width could be offset by decreasing the depth to 64 feet. A lot $33\frac{1}{3}$ feet by 64 feet might be worth considering as an alternative to one 25 feet by 100 feet at the same price; although it is very likely that the index would presently be raised by improving the original cheap street, in which case the additional front foot cost would have to be met either by assessment on the abutters or by the city at large. In the long run *somebody* has to pay for tolerably good streets and sewers, not to mention all the other service mains, which cost just so much a mile to lay and renew.

This seems an appropriate place at which to say a few words about speculative profits. To one who has acted as a professional adviser in many land development operations, some of them highly lucrative and some the reverse, it is apparent that housing reformers often labor under a serious misapprehension as to the size of the average margin between the cost and the price of lots; the margin which is supposed to include an excessive and illegitimate speculative profit for *somebody*.

Let me begin my analysis of normal costs by quoting a rough-and-ready estimate which sums up the experience of one of the largest and most successful commercial developers of suburban real estate for people of small or moderate means. He says that under ordinary conditions, unless you can see your way to selling the lots which you can form out of a given tract of land for about three times what the raw land will cost you, or better, its development is hardly likely

to be a profitable venture. Roughly he figures that of the total selling price of all the lots in a development about one third is absorbed by the first cost of the raw land at acreage rates; another third by the cost of development, mainly street construction; nearly a sixth by selling costs, such as advertising, commissions, and all the devices which he has found it profitable to employ because they enable him to sell quickly and thus save more than their cost by keeping down the carrying charges on the investment. This leaves about one sixth, or say between 15 and 20 per cent of the assumed selling price to cover carrying charges (that is to say, taxes and interest, on the invested capital during the entire operation), and also the possibility of profit enough to justify the developer in risking his time and effort and money against the chance that his judgment may be wrong and the venture turn out to be a losing one.

While there are wide variations from the above, I think it is fair to say that, in the process of converting open fields into available building lots, the necessary and legitimate charges, where the process is conducted in the most efficient and rapid manner and the transaction is practically closed up within (say) three or four years, are apt to approximate one third for the raw material of suitably situated land, one third manufacturing costs, and one third merchandising costs and other overhead expenses.

It is very seldom, however, that all the lots are actually built upon so rapidly, and it must be borne in mind that, whether vacant lots are held by the original developer or by a middleman or by the ultimate occupant, they must be charged with interest and taxes without any offset until they are put to use. With

taxes at 1 per cent and interest at 6, the usual mortgage rate, the investment in a vacant lot will double in about ten years. Under ordinarily favorable conditions and with an active and liberally financed campaign on the part of the land company to hasten the erection of houses as well as the sales of land, it seems to be inevitable, taking account of all the lots in a subdivision, that several years should elapse on the average between the date when the lots are ready to build on and the date when they *are* built on and in use.

I think it is fair to say, therefore, that the inevitable costs involved in the process of acquiring acreage land, subdividing and developing it, and selling the lots, together with carrying the vacant lots until they can be built upon, are seldom much less than three times the cost of the raw land and frequently four or five times or even more, the financial success of the developer turning largely upon his ability to turn the goods over quickly and to make the purchasers carry the burden caused by their own delay in putting the land to its full use.

Whether the total costs up to the time of building on a lot are three times the original cost of the raw land, or five times, or what not, there may be added at the time of sale either a speculative profit or a speculative loss, large or small according to the current market price. That price is partly controlled in the long run by the cost of producing competitive lots, but is mainly determined by a prevailing speculative hope of an indefinitely increased demand in the future. How this speculative element tends to increase the actual burden of cost I will try to suggest later; but it is my impression that the prices at which lots are sold for the immediate erection of buildings do not *on the*

average cover more than a very minor fraction of net speculative profit. Usually some one or more of the series of previous buyers and sellers has made a substantial speculative profit and the rest have stood speculative losses.

The same experienced operator whom I have already quoted has told me that he has learned to adhere absolutely to the principle of never buying any vacant land until he is ready to proceed immediately with its development and sale. He has no moral scruples whatever against making money by speculating in such land. But he has found that on the average there is no money in it; that it is cheaper to let somebody else carry the vacant land until he finds the time ripe for working it up into lots and selling them. His opinion is corroborated by that of other experienced operators in real estate. It amounts to this: that on the average and in the long run more money is lost than is made by speculative holding of vacant land; that the element of accrued speculative profit represented in the price of vacant land bought at a fair market value is on the average a negative quantity.

The contrary opinion so widely held, the opinion that there is generally present in city and suburban land values a huge percentage of accrued speculative profit, which, if deducted, would radically change the conditions of the housing problem, appears to be due in part to the incurable optimism of mankind, to the inborn gambling spirit that goes with the desire to get something for nothing; and in part to the incessant systematic and heavily financed campaign for influencing public opinion which is conducted by all the agencies concerned with the business of selling land. Almost the entire force of the real estate business of

the whole country, so far as it comes in contact with the general public, is working all the time, with a vast and costly machinery of publicity, upon the bull side of the market.

If it is true, as we have been told, that advertising has made us into a nation of breakfast-food eaters, it is equally true that advertising and the efforts of professional boomers have made us unduly credulous of the profits normally obtainable from the purchase and holding of city and suburban land. The large speculative profits which are frequently realized on land are like the grand prizes in a lottery. Without them the business would not go on. But the grand prizes in a lottery do not alter the fact that the average cost of the tickets is more than the average return to the ticketholders in the way of prize money.

I do not mean for a moment to deny that land speculation is in many cases responsible for increased cost or diminished quality of housing. Every form of gambling, with its diversion of human energies from useful work, involves a waste for which the community must inexorably pay the price. The loss to the rest of the community is not to be measured by the (supposed) profits of the land speculators and much less is it recoverable out of those supposed profits, as reformers so often assume, misled by the same rosy optimism as the gamblers themselves. The losses to the community as a whole grow mainly out of the fact that the dazzling possibility of a large speculative profit often leads the owner of land to neglect the humdrum business of getting such little use out of it from year to year as it is capable of rendering, and diverts his energy into the more exciting occupation of throwing good money after bad by making "improvements" for which there is no economic justification, or

by going in for other costly attempts to force the market.

There is an enormous economic loss to the American people from this speculative subdivision and development of land far in advance of the needs of each community. But there is no compensating profit on the part of the investors in premature development projects. If compensation is to be found at all, it must be sought in the mere pleasure derived from gambling in lots.

Let us now consider the basic costs which determine the various index figures previously discussed and which, with the addition of a varying percentage of overhead charges, determine the total cost of any given lot.

The front-foot costs do not consist merely of half the cost per lineal foot of the street on which a lot abuts. There are street intersections to be paid for somehow, and the extra value of corner lots is not great enough to cover the cost of laying out and constructing both of the streets on which they abut. Without going into the rather tedious calculations upon which my conclusion is based, I will state my conclusion that the normal cost for street construction per front foot of ordinary interior lots on local streets is equal to not far from three quarters of the cost per lineal foot of the streets.

"Street construction" may, and sometimes does, consist of plowing up the roadway, running a road scraper over it a few times, and putting up the street signs. Sometimes it is even limited to the signs alone. But here, as elsewhere in housing problems, we must fix an irreducible minimum somewhat above the lowest commercial practice. I think Mr. Veiller would include a sewer connected with a proper sewerage system in his

irreducible minimum. If so, I would, under certain circumstances, disagree with him. Upon a suitable, well-drained, sandy subsoil, a fairly open suburban development, provided with a water supply from a safe source (local surface wells being absolutely barred), can get along perfectly well for years with small septic tanks or leaching cesspools on the several lots.

But I hasten to add that the favorable conditions which justify such a development are the exception rather than the rule, and that in the majority of places a housing development cannot be regarded as satisfactory until the streets are sewered. A water main is essential, and either gas or electricity or both are nearly so, but the installations for all such services except the sewers are ordinarily paid for out of annual service charges and are not usually reckoned in figuring the cost of development. From the larger point of view of the city planner, it is clear that any arrangement of lots and streets which increases the length of such mains per capita creates an expense which must be paid for somehow; and they ought logically to be included in estimating the relative cost of different types of layout for housing a given population. But for the present, like the average real estate developer, I will leave these complex problems to the public utility corporations to work out as best they can on whatever street plan they happen to get.

The other chief elements of local street construction are the grading, the sidewalks, the road construction, the curbs, if any, the gutters and storm drains, if any, the parkings and tree planting, if any, and the street lights, if any. I will assume as the irreducible minimum under the most favorable conditions a street costing about \$1.33 a running foot to construct. On a flat gravelly sand-plain like those of Long Island such streets are built, including two cement sidewalks and

a passable roadway shaped up out of the material found on the spot. The street would have no sewer, no street lights, no curbs, and no paving. This street construction would be chargeable against the lots at the rate of \$1 per front foot. For \$5 a front foot, which is equivalent under our assumptions to \$6.66 per lineal foot of street, one could add a sewer, a narrow macadam pavement, curbs and street trees; or cut out some of these and include other features; all on the assumption of favorable conditions and a somewhat parsimonious style of work.

For \$10 a front foot, equivalent to \$13.33 per lineal foot of street, one can build a high-class and thoroughly improved suburban local street under ordinary conditions.

There are certain other elements of cost which are chargeable substantially in proportion to the area of the lots, as measured from the center of the local street to the back of the lot. Of course the chief of these is the cost of land. Next in importance is a share in the cost of the main streets or thoroughfares. In so far as the thoroughfares have to be wider and better paved and their trunk sewers larger in order to do the business arising from the population living on the local streets, a share in the cost of their development must be charged against the lots of the latter. Again, without going into the calculations, I will state my opinion that this portion of the construction costs is likely, in normal cases, to run somewhere in the neighborhood of one cent per square foot, falling in some cases as low as half a cent or less and perhaps rising as high as two or even three cents.

In first-class developments conducted by land companies, or in the ultimate development of an urban area by municipal authorities, there are many other elements of improvement cost, such as parks and play-

grounds, not to mention schools and other public buildings and their grounds, but none of these is fairly chargeable either per square foot of lot or per front foot, and perhaps the fairest practicable method of taking cognizance of them is to apportion their cost in proportion to the value of the lots, as is done in general taxation. For purposes of reckoning total cost these elements may therefore be merged with the other general overhead charges.

To sum up, we have the charges for local street construction running at rates mostly from \$5 to \$10 a front foot, but in extreme cases down to \$1 or above \$10. We have the charges for thoroughfare construction varying both sides of one cent a square foot. Finally, we have the cost of the raw and undeveloped land ranging from say one cent a square foot (\$435 an acre) up to ten cents a square foot (\$4350 an acre), or near a great city up to considerably higher figures. Thus for a lot 50 feet wide and 125 feet deep on a 50-foot street the costs might figure up thus:

Frontage costs, 50 feet at \$6.00.....	\$300.00
Square foot costs, 7500 feet	
(a) construction at 1c.....	75.00
(b) land at \$2000 an acre = 4.6 c. per square foot.....	345.00
(index figure 1.07)	
Total basic cost.....	\$720.00
Overhead expense up to date of constructing building, including loss of interest and taxes say 100 per cent.....	720.00
Total cost (irrespective of any speculative profit other than may have been included in the cost of the raw land at \$2000 per acre)	\$1440.00

I do not flatter myself that the figures I have presented solve any housing problems; but I hope they may be useful in helping us to apply our efforts in directions which are likely to be fruitful and in avoiding the pursuit of aims that are too directly opposed to mathematical and economic law.

TABLE OF CONSTRUCTION COSTS OF AN ACTUAL FIRST CLASS SUBURBAN LAND DEVELOPMENT

	Portion of Total Cost Chargeable per Square Foot*	Portion of Total Cost Chargeable per Front Foot*	Amount Chargeable per Front Foot*	Amount Chargeable per Square Foot*
A. MATERIAL AND LABOR				
1. Grading of Streets		\$42,185.81	\$1.1601(c)	.....
2. Grading of Lots	\$27,740.74	.....	.....	\$.00463—
3. Sanitary Sewers	10,526.00	38,428.64	1.0568 +	.00175 +
4. Storm Water Sewers.	32,754.16	.....	.....	.00546 +
5. Curbs	11,116.00	24,484.00	.6733 +	.00185 +
6. Sidewalks	8,309.19	26,312.41	.7236 +	.00138 +
7. Street Paving (a)	21,304.84	68,335.16	1.8729 +	.00355 +
8. Street Planting (b)	7,968.54	38,255.20	1.0520 +	.00133 +
9. Ornamental Lamp Posts . . . . .	.....	8,475.00	.2330 +	.....
10. Electric Conduits . . . . .	.....	9,869.01	.2714 +	.....
11. General Improvement and Sundry Decora- tive Features	24,934.38	.....	.....	.00438 +
B. SUPERINTENDENCE (d)	11,067.85	20,118.00	.5532 +	.00184 +
C. DESIGN AND ENGINEER- ING	26,892.69	48,883.05	1.2772 +	.00448 +
	<u>\$182,614.39</u>	<u>\$325,346.28</u>	<u>\$8.8735 +</u>	<u>\$.03065 +</u>
TOTAL CONSTRUCTION COST	\$507,960.67			

The above costs include no contractors profit, no portion of the general overhead expenses of the development company and no allowance for taxes or interest.

Land cost, .14076 per square foot. (e)

Construction cost, .03065 per square foot.

The cost per front foot in dollars divided by the cost per square foot in cents, that is $\$8.8735 \div 17.141 \text{¢} = .5 +$ Index Figure.

* The division of items between these columns is not made on the books of the company, but according to the judgment of the author. The square foot area of lots measured from the center of the street.

(a) Excluding certain alleys built to provide access to certain row buildings and charged as part of individual lot development.

(b) Including soil preparation, establishment of turf, trees, shrubs, etc.

(c) Per front foot of saleable lots, exclusive of side frontage

Park frontage	3,032 lin. ft.	
Saleable lot frontage	36,363 " "	= 68.2% of total frontage.
Side frontage of lots	12,605 " "	
Railroad frontage	1,330 " "	
Total frontage	53,330 " "	

(d) Superintendence including foremen and other incidental expenses of construction gang.

(e) Square foot cost of land is determined by dividing total land cost by the saleable lot area.

THE PLANNING OF THE LOW-COST HOUSE

WALTER H. KILHAM

Architect, Boston

IN approaching the topic of the design of the low-cost house I would like to explain that when I say "low-cost house" I really mean a low cost one, or what is the same thing, a substantial house, not of wood, which can be offered for a rental of fifteen dollars per month or less in a populous city and free from corporation paternalism. Wooden cottages can be, and are, built in small towns for lower rentals, but the real problem is not the habitation for the teacher, clerk or social worker, but for the horny-fisted son of toil, unionized or not, who faces the financial problem of bringing up a large family of children on an income represented by twelve or fifteen dollars per week when times are good and a large-sized minus sign when the work goes slack. This portion of the population needs clean, well-lighted houses, in healthful surroundings and can and will get along without trimmings if the rental can be brought within their needs, provided the neighborhood is large enough to bring a good many families into the same social plane.

Generally the designer of low-cost habitations finds himself in a dilemma between the ever-increasing demand of the laborer's family for conveniences and comforts and the contemporaneously increasing cost of building construction. No matter how much the cost of building goes up the demand of the tenant for larger rooms, more plumbing and other equipment

keeps more than abreast of it. From the standpoint of the architect, any attempt to solve the question from any such premises as attempting to satisfy every demand of the tenant leads only to an impasse. The laboring man belongs to no privileged class, and, like other people, has to go without what he cannot pay for.

The trouble with most housing schemes has generally been that while they always start with the idea of providing simple habitations for working people, the actual result is that, by the time they are built, the plans have been so improved and enlarged upon that the houses are seized by a class superior to that for whom they were originally intended who readily pay a little higher rent for the new and cheerful homes while the laborer's family stays on in the old shacks which seem to be its only refuge. I have again and again seen houses intended for mechanics and street-car men delightedly taken by teachers, clerks and even doctors, merely because too many improvements were added to the houses by those in charge—fireplaces, furnaces, and piazzas are likely to be out of the reach of the laborer and it is useless to consider offering them to him. If we really want to provide houses for this class we must include in the plans only the *fundamentals*, while at the same time we assure to the house a sunny and cheerful exposure; a reasonable amount of yard space and a floor plan which nets the occupant 100 per cent utility, in other words, free from dark or unusable spaces. If we can approach the problem from this standpoint, it is not impossible, given a reasonable land value, to promise the working man a home in a comfortable and substantial semi-detached house, standing on its own plot of ground, with sunlight around three sides.

The question then arises as to what constitute "fundamentals." I should say light and air, hot and cold water, facilities for a bath, refrigerator space and as many bedrooms as possible. I should not so class furnaces, piazzas, fireplaces, parlors separate from the kitchen, nor set wash bowls. I am not sure of the necessity of set wash tubs in these days of "wet wash" laundries. Some tenants at Salem have asked to have them taken out. Like the Swedish servant girl, I should be contented with a "crematory cellar, cemetery plumbing and elastic lights" and omit the "hoosit" or telephone.

In one of our housing projects we designed the house with the bathroom adjacent to the kitchen, so as to reduce the length of piping and to conserve all the heat from the kitchen range for the hot water. To help bring the cost down we omitted the wash bowl in the bathroom, expecting the tenant to use a hand basin in the kitchen sink. A considerable remonstrance arose from some philanthropists over the alleged hardships of this practice to which we replied that in the building in Boston where our own offices are located, an old mansion which once sheltered Lafayette, we still are compelled to use agate-ware basins in soapstone sinks and rather like it. As a matter of fact the tenants not only never complained but a waiting list has existed for these houses ever since they were finished. Some improved dwellings have bathrooms fitted with water-closet, wash bowl and, to save space, a shower instead of a bathtub. I would always keep the tub even at the expense of leaving out the wash bowl. Of what use is a shower to a workman's family? You can't wash a baby in a shower, or your feet, or anything else and you can't sail boats in one

or even keep coal in it very well. A shower is a rich man's luxury but its utility is questionable.

My own experience in these matters has been limited to a few ventures in the vicinity of Boston, so that I hesitate to lay down dogmatic rules of what should be done in other sections to provide healthful low-cost homes but I will be glad to speak of a few points learned from personal contact with the problem, leaving Mr. Veiller and Mr. Ihlder to explain their reasons for bringing me into a circle of experts so much better prepared than I am to discuss the matter.

It seems to me that a good fundamental proposition in starting a housing project is to have it so designed as to make it possible for a tenant of ordinary industry to easily acquire the ownership of a house, and among this class of people there exists a strong desire to own a building in which one or two tenements can be rented to others, so that the owner is enabled to get his own housing expense down to a very low figure. This desire on the part of the tenants is partly responsible for the "three-decker" evil which has ruined so many suburbs of Boston, and it is highly desirable to provide a better means of meeting this demand. If the building contains too many tenements it is naturally too expensive a proposition for the small owner, but a double or semi-detached house offers a type of home not impossible of acquiring by the worker of moderate means, while at the same time it provides an income-producing investment.

Of course it is evident that in many cases the value of the land compels the construction of houses in blocks. The interior houses in such blocks evidently cannot get the desired exposure to air and sun, but a double house can have each tenement exposed on three

sides, and each can have its own side entrance and path to its back yard without passing the rear of any other tenement. The single house is theoretically, I admit, the ideal type but I have found that it is slightly more expensive to build, requires more land, and while eagerly sought by renters is much more difficult to sell and, on account of the impossibility of obtaining long horizontal lines, is less attractive architecturally and forms a less dignified architectural unit than the double or semi-detached cottage.

In our settlement of "Woodbourne," inside the city limits of Boston, we designed and built brick low-cost houses singly, in doubles and in picturesque blocks of six and in all cases we found that the double or semi-detached houses were the first ones to sell and frequently the first to rent, so that the superintendent of the property unqualifiedly recommends the type for future construction. "Woodbourne," of course, is rather an example of what may be done in providing attractive cottages in a beautiful setting at the same rental as ugly wooden flats than a solution of the housing problem for the laborer, but the general principle seems to work out in about the same way.

At Salem we built double houses entirely with gambrel and hip roofs and while care was taken to exclude families who could afford to pay more than the fifteen dollars per month demanded, already, only three or four months since completion, several tenants have purchased their houses and many of those renting are spending their own money to beautify the surroundings.

Plan: In the arrangement of the plan the American temperament and environment must be considered. If we only had a peasant class who were contented to

remain so how easy all this planning would be! The peasant family transplanted to American soil is no longer content to live in the kitchen but demands a dining-room and a parlor in addition, for no real reason except that some of their slightly more solvent friends have them. In our Salem experiment we built two types of houses, one having a front sitting-room and rear kitchen on the first floor and the chambers and bath upstairs, the other with large combination kitchen, living and dining-room at the front of the house with a chamber and bathroom opening out of it at the rear and with other chambers upstairs. Although this latter type was seriously questioned before the houses were built it has been fully as much in demand as the "sitting-room" type and for each type there were three times as many applicants as could be accommodated.

Compactness is an important quality of planning. The plumbing must be reduced to the shortest possible lines and the bathroom ought to be either adjoining or directly over the kitchen so as to get the benefit of all the heat for the hot water. As no furnace is supposed for the house the chimney may well be disposed so as to pass by the wall of the bathroom and in fact the hot water tank may often be located in it. If there is a possibility of half the house passing to a separate ownership, the plumbing systems should be kept separate, otherwise money may be saved by running them on the same stack. Sinks should be 33" from the floor and supported on brackets instead of legs.

Space for the refrigerator adjoining the back door should always be provided, with a proper drain, so as to avoid the waste of ice caused by keeping it in the

kitchen and a space for the omnipresent baby carriage found, if it is possible, though for the minimum rental this may not always be possible. Stairs, I think, should lead directly from the front door rather than from the living-room, and, in a double house, by all means keep the front doors of the two houses separated, as for sitting out purposes on hot nights, the combination front stoop for two families is a most decided objection. This, however, involves placing the stairs at the end of the building so that the front room cannot have windows on two sides, but on the other hand it implies a well-lighted and airy stairway, a feature which certainly appeals to the imagination.

The cellar should have a direct outside entrance if possible or at least should be reached without entering the main portion of the house. This is accomplished in some of our houses by making a small side entry with the refrigerator at one side of the door and the stairs to the cellar going down on the other side, thus being convenient to both the kitchen and the outside. The cellar should be concreted and have a few shelves, etc.

The kitchen must have accommodations for the simple stock of groceries to be kept on hand, either in a pantry closet or a cabinet of some sort, and should have painted walls. Laundry tubs may be provided in connection with the kitchen sink, though as I said above, they may not be obligatory. The walls are painted in oil and the floor is oiled. If there is a sitting-room, doors or windows must always be of a size to admit a piano for, if not, every tenant will surely possess one. Fireplaces will probably be beyond the cost limit but a shelf like a mantel shelf is sure to be a convenience.

Bedrooms: The subject of bedrooms brings up the question of size. The legal size of 90 square feet for tenement bedrooms seems small to those who had larger rooms in the old houses but as a plain matter of cost it is about all that can be provided. Many families are blessed with an abundance of children which creates a demand for numerous, even if small, bedrooms and in a good number of our houses, at least, we have had no complaints of small room sizes. Windows and doors must of course be so arranged as to provide spaces for the furniture without any waste of room.

Construction: I am firmly of the belief that substantial, even if simple construction is the most satisfactory in the end. Brick is a durable material, requiring no expense for maintenance and is only slightly more costly than wood or stucco. Slate and copper are cheaper for roofs in the end than shingles and zinc, and the action of local water supplies on metal, in different localities, ought to be considered in writing the plumbing specifications. For the same reason, the floors and interior trim ought to be of hard wood and the hardware strong and durable. Care must be taken to see that cellars will be tight and dry and a minimum of painted finish should occur on the exterior.

Houses in Blocks: I feel so convinced of the desirability of the semi-detached type that I have enlarged upon it at the expense of the block type and the "flat type," though of course situations will be found where they are more or less obligatory. The objections to building houses in blocks are self-evident and have already been mentioned; only high cost of land or poor transit facilities can excuse such construction.

We have developed plans for a type of block of three houses, standing end toward the street, and occupying a plot about 40 x 80, to meet the famous Boston three-decker on its own ground, but have so far not built any houses from them. This plan provides a fifteen-foot space between each block of story and a half gambrel roofed cottages, say twenty-five feet high, and admits a fair amount of light and air, when I consider that a three-decker is thirty-five feet high and the alleys between are only ten feet wide.

The cost of construction of houses in blocks does not seem to be materially less than in semi-detached form. We have developed plans and taken bids for two-story flat-roofed brick houses in blocks and find that in the vicinity of Boston for approximately the same-sized houses, i.e., about 428 square feet, the cost varies less than 1 per cent from the semi-detached gambrel-roof cottage type, which is infinitely more pleasing to the eye, and more convenient for the tenants, so that again the excuse for building this type must be found in the land situation.

Certainly it seems to me that some attention ought to be paid to the appearance of the settlement and its undoubted effect upon the mind and morals of the inhabitants. The children and wives of the laboring men soon acquire a spirit of civic pride in a settlement of semi-detached cottages which would never appear in a district devoted entirely to blocks, unless they were designed in a manner beyond the laborer's reach, and quickly begin themselves to beautify the houses and gardens.

The objections cited in the case of the "block" houses apply with equal force to the "flat" building, with the added one of destruction of the privacy of the

home. The use of the common stairway by the troops of children, the difficulty of watching them from the upper floors and the total absence of any bit of privately controlled land, all condemn the flat as an abode for families with children and, as I have said above, I am not attempting to deal with the question of homes for bachelors, spinsters, or childless couples; their problem is too easy.

Where conditions absolutely require flats the plans should be designed so as not to waste too much room in corridors. Chambers and kitchens can open from the common living-room without inconvenience to any one and for the low-cost apartment must do so to keep within the cost limit. While not approving the "flat" system for laborers' families, I must admit that as an investment flats have so far shown up better than cottages, and must continue to do so until people in the cities come to demand living accommodations away from the congested district.

Tenement flats have had a long run, but there are signs that their end is approaching as far as the less congested districts are concerned. In Salem recently a well-known builder of tenements expressed the opinion that in five years the working people of that city would refuse to live in the old style tenements of three stories and upwards but would insist upon two-family houses either of the semi-detached type or that having first and second story apartments and this builder has commenced work on some double cottages as a better investment than the three-deckers that he formerly put up.

The laborer and mechanic work long hours and have to spend a good deal of time in getting to and from their work, a condition which makes it seem desirable

for them to live in a central locality. The problem of finding land for them to live on is a proposition apart from the subject of this paper, but I feel that it is by far a more important one than the actual planning of the house. What we need is to find here and there tracts of land near to main rapid transit lines, but not necessarily on main thoroughfares, which can be acquired at a price which will enable them to be devoted to cottage development for the laborers and mechanics, the real class which needs help and so rarely gets it.

DISCUSSION

FRED C. FELD, *Octavia Hill Association, Philadelphia:*

The reading of Mr. Kilham's most excellent paper impresses one from the very beginning with the fact that at last the architect had been able to get down to the problem of planning houses for the wage-earner. His paper is most practical and keeps to the subject, and I hope marks a new era when architects will take up this most important matter.

I remember my first experience when calling upon an architect to prepare plans for workingmen's dwellings for the Octavia Hill Association. When I told him that we expected to use stock sizes in all our door frames, doors, window sashes, and frames he was very much horrified and stated that he did not know what stock sizes were and if we expected him to use them it would be necessary for us to furnish a list of these sizes to him.

In my discussion of this paper I wish to emphasize certain factors which are very definitely fixed, and which will be met in the attempt to provide good houses for

the workingmen. It is to be noted that these factors vary with the different localities and they should be well understood at the beginning of any attempt to plan and build workingmen's houses.

The first and most important factor is the cost of the land and street improvements. Mr. Kilham has mentioned this in the last few lines of his paper, presumably, I hope, with the thought in mind that the last impression is the one easiest remembered. In Philadelphia land that is ripe for development costs from \$10,000 to \$12,000 per acre with street improvements and it is becoming more difficult each year to secure it at that rate.

The land upon which the workingmen's houses have been built by Mr. Schmidlapp, in Cincinnati, I understand cost between \$2000 and \$3000 per acre. In Pittsburgh the available ground is greater in cost, while in Minneapolis it is less. It can be easily seen from this wide variation that what one can do will be limited or helped by this first cost.

The second factor, a difficult one, involves answers to these questions: Who is the workman? What can he pay? How does he live? What are the characteristics of the living conditions of the various nationalities? How shall we regulate the house so that roomers and lodgers will be kept out, or reduced to the minimum.

In the various discussions in the conference so far we have heard the workingman called the \$2 per day man, the \$1.50 per day man; or the \$5 per day man. At the very beginning of our housing operation we must know which of these classes we expect to provide for.

Third: What are the local building laws regarding construction? These we find vary greatly in different

localities. In Philadelphia we are obliged to use larger sizes of floor joists in small house construction than in any other city. In a 16' house we are obliged to use 3" x 9", while in many cities I find that 16' houses, or even greater in width, 2" x 8" joists are used. This item alone makes a difference in cost of construction.

Then again some cities do not permit the use of hollow-tile or concrete. In Philadelphia, in planning the houses to be built by the Octavia Hill Association we expected to construct the kitchens of our one-family houses of hollow tile. This was not permitted by the Building Bureau. Upon being pressed for a reason they stated that hollow tile in case of fire would become very brittle and collapse and the firemen might be injured, or if improperly laid be in danger of collapsing. One would think that Philadelphia took great care of its firemen, until our attention is called to the fact that these same kitchens might be built of the most flimsy frame construction, and still be passed by the Building Bureau.

Concrete cannot be used as restrictions for its mixture and reinforcement are so great as to make it available only for very heavy factory construction. Consequently we are limited to brick walls. These may be 9-inch in our terminology, or as they are termed in some places 8-inch. The reason given for this extraordinary construction in small houses is that it is necessary to have a large margin for the factor of safety. In my estimation this great margin is insisted upon to make up for lack of proper inspection. Perhaps experiences of this kind have been noted in other cities, but one can see from these facts how important local building laws are in the cost of construction.

Fourth: What fixed charges will be made in figuring our net investment? I shall merely mention some:

(a) What dividend do we expect to pay? Five per cent seems to be the favorite rate and we are told that unless a company pays 5 per cent it will not be able to secure much capital.

(b) What shall we allow each year for depreciation? One or 2 per cent is usually allowed.

(c) How much shall be allowed for repairs? This should also include the amount given to the tenants in the form of rebate for the proper upkeep of properties.

(d) We should deduct something for the loss of rent, either through vacancies, or non-payment.

(e) Fire insurance and liability insurance should be taken into consideration.

(f) Cost of management, whether a commission to a local agent, or expense of maintaining the company's own offices, as is done by the Octavia Hill Association. We employ women social workers as rent collectors.

Fifth: The Cost of financing: As a general rule the commercial builder in the city of Philadelphia pays 18 to 25 per cent, or an average of 20 per cent of his entire building and land cost for financing. The purchaser in turn of course must pay for this item, which means that for every one dollar the purchaser puts into the house, eighty cents is house and twenty cents is for providing for the funds used in the construction of the house. This is a most important factor. I am told that in many cities this cost is considerably less and that in Minneapolis building operations can be financed for 6 to 8 per cent. This, based upon our experience, is a low rate.

I wish to note in connection with this, however, that while the Octavia Hill Association was able to secure its funds without any expenses of this character in any general building of similar houses these costs must be met.

Sixth: What minimum rents do we expect to charge for the houses? This fact should always be fixed at the very beginning of planning for the construction of houses. If the houses are being built for sale the selling price must be considered.

With these factors in mind an architect is in the position of a baker who has gathered all the necessary ingredients to make a cake. The architect finds that he would like to use the roofs and so put them in his plans. He wants to vary the arrangement of the houses, or the monotony which is found in long rows. He wants to put in certain exterior changes which will tend to beautify the houses. With his plans completed he secures estimates and finds that they are too high, that the dividend cannot be made and various other charges met and the rents be maintained at the low rate decided upon. So he begins again. The easiest way would be to increase the rent but this factor should remain fixed and the only way is to reduce in some manner the cost of the building. After many conferences the use of the roof is taken off, some of the decorative plans for the exterior of the houses eliminated, some of the pavements made narrower, less expensive hardware used, etc., until finally the houses are gotten down to where the cost will justify the investment on the low rents we expect to charge.

As to the details of arrangements and improvements the following matters will, of course, necessarily be discussed; baths, hot and cold water—which means some

way to heat the water, a range; shall the kitchen be separate or part of the living-room? Many people, depending largely upon nationality, are pleased with a large living-room arrangement, while others desire a small living-room and a parlor. A dresser or pantry should be installed in the kitchen for dishes, etc. In our houses we have installed a laundry tub. In Mr. Kilham's description one chimney flue only is put in, running through the bathroom and furnishing heat for the bath, while he has noted an arrangement for connecting the refrigerator to the drain. It seems to me that Mr. Kilham's one reason for not putting the wash stand in the bathroom would be used for not putting in the drain connections for the refrigerator, as the tenants in cheap houses could well afford a tin pan under the refrigerator, emptying the waste out once or twice a day as the need might be. The money thus saved would be spent in putting in another chimney in the front part of the house. Houses need heat in the northern climate, and the workingman, when he returns from his day's toil and after he has his evening meal, enjoys getting into his slippers, taking off his coat and vest and collar and reading his evening paper. This would be rather a hardship if the house were improperly heated. In the small houses built by the Octavia Hill Association we have installed a furnace at the very low cost of \$33 per house, which will heat the bathroom and the other four rooms of the house.

The question of wall finish, whether paper or paint, is also dependent upon the local conditions. Some districts favor cellars and some do not put cellars under the houses; but it seems to me for proper ventilation and a place for storing foodstuffs a cellar is very

necessary. The questions of walks and sizes of yards are all dependent upon the factors we have already mentioned.

In discussing this matter I have not mentioned the question of light and air, as I feel that these things are taken for granted.

After we have our houses built and have achieved that part there arises always the danger of having superior families snatch up the properties. So in closing let me say the only way to prevent this is by careful investigation of the families and refusing any families except those for whom we have planned.

I would say that I have enjoyed Mr. Kilham's paper and have found it very helpful.

HOUSING PROGRESS OF THE YEAR

HOUSING PROGRESS OF THE YEAR

JOHN IHLDER

Field Secretary, National Housing Association

It is somewhat more than a year and a half since we presented the preceding report at the conference in Cincinnati. During that period, which has become generally known as one of reaction, we have nevertheless made noteworthy progress in housing.

Then there were 97 cities and towns aroused to the importance of the work and 39 others which had begun to show a definite interest, a total of 136. To-day this total has been increased to 188. During the year 1914, 19 new housing laws, ordinances and regulations were adopted. During the first six months of the present year, 15 more have been added. Among these perhaps the best, from the points of view of thoroughness and good standards, are the Grand Rapids, Mich., code, adopted February 24, 1914, and the Berkeley, Cal., code, adopted June 1, 1915. Both of these were based on the Model Housing Law. But there have been many others which have notably raised housing standards and have affected great populations.

With these triumphs we must, however, admit some reverses, for housing, too, suffered from the spirit of reaction which has swept over the country.

The most important of our reverses was the repeal on March 5, 1915, of the housing law for the six second class cities of New York State. There certain interests whose concern was to continue present practices

which make for unwholesome conditions organized and made so determined a fight in the legislature that the advocates of the law were defeated. As their convincing argument they used the plea of home rule, and declared that each city would adopt its own housing ordinance. The existence of abominable conditions which the law would change was not, and could not be denied. Since then three of these cities have adopted weak ordinances and a fourth is debating one. The other two cities have done nothing.

The other important reverse was in Pennsylvania where the housing law for Philadelphia, secured in July, 1913, but never enforced because of the opposition of the city councils, from whom it took important powers, was repealed and a weaker, compromise measure substituted. Philadelphia in some respects is better protected than it was before 1913, but the present law, which has been in effect only a few weeks, comes nowhere near meeting its needs.

To have held what had been gained is somewhat of a triumph in such a period as that through which we have just passed, and such triumphs were scored in New Jersey and Indiana. In New Jersey a most determined attack was made upon the state tenement house law. The opposition was strongly organized and skilfully led. But so was the defense. And the defense had the advantage of convincing facts showing the benefits the state has derived from the enforcement of the law under its able administrators. New Jersey was fortunate, too, in having a state housing association which has aroused considerable popular interest and the beginnings of a demand for better rather than weaker regulation. So all of the opposition's bills died in committee.

In Indiana the conflict was not between an irresistible force and an immovable object, but between two irresistible forces. Both planned changes in the law. The Indiana Housing Association drafted amendments to the law it had secured at the preceding session of the legislature, which would convert the tenement house law into a real housing code. The speculative interests drafted amendments which would have greatly weakened the law. The result of the collision was spectacular. Fortunately the anti-tuberculosis associations held an important meeting in Indianapolis at the psychological moment and were so vigorous in their demands for housing regulation as a necessary part of the campaign to stamp out the white plague that they made a very considerable impression. But the great strength of the advocates of good housing was in the popular support Mrs. Bacon and her fellow workers had secured during preceding years. All over the state the newspapers declared that Indiana must take no backward step. And it did not. At the next session of the legislature it will take a forward step, for the forces of reaction there have shot their bolt.

This gives in brief a sort of a bird's eye view of the fight during the past eighteen months: two reverses of some consequence, yet reverses which leave us considerably further advanced than we were before the fight began, two drawn battles with the moral effect all in our favor, a great number of actions in which we have won, some giving us command of positions far in advance of any we have held before.

In such a brief review as this it is impossible to go into detail, to describe separately each forward move. Otherwise we would tell of the continued progress in Massachusetts where twenty-three towns and one city

have now adopted the state tenement house laws, of the advances even in Boston where the worst cellar dwellings are now being vacated under a new law setting higher standards, of the more vigorous enforcement of the California law under the Commission of Immigration and Housing which has been granted new powers, of the encouraging work in Pittsburgh, of Bridgeport's successful fight to set higher standards under stress of greatest temptation to lower them—for Bridgeport is to-day a boom town. But these stories and others you will get from the delegates at to-morrow's round table luncheon.

We can, however, mention some general tendencies which show that we are moving forward. Housing is not confined to the house alone. It is concerned with sanitary conditions for one thing. Consequently we are much interested in the extension of sewer systems, in the substitution of city water for the surface wells which are so liable to contamination. Our cities have been slowly awakening to the vital importance of these improvements. During the past year and a half the awakening has proceeded apace. Our records show that city after city is adopting regulations which will hasten the day when privies, relics of the past will survive only as relics. In the South, progress has been especially noteworthy.

But there still remains so much to be done that the task seems almost staggering. Some of our cities: Worcester, Mass., Richmond, Va., Buffalo, N. Y., Erie, Pa., report that there are no privy vaults on unsewered streets; some, as Birmingham, Ala., that no new vaults are permitted; one, Savannah, Ga., that there are no vaults at all, every house having a sanitary water-closet and sewer connection. But these are

exceptional. From others come such reports as these: Philadelphia, 39,078 vaults; St. Louis, 20,000; Minneapolis, 17,000; Detroit, 5800; Cleveland, 2835 vaults and 4000 privy sinks; Grand Rapids, 4400.

But most of these cities are working. Philadelphia in two years abolished 15,661 vaults. Toronto which had 17,181 in 1912—approximately the same number that Minneapolis has to-day, had only 4890 remaining on December 31, 1914, and the good work is continuing. Cleveland removed 494 vaults last year, Detroit 213, Columbus 642, Grand Rapids 1000.

The most discouraging reports come from St. Louis and Minneapolis. St. Louis states that "a great many" have been removed, Minneapolis that 450 were condemned. But neither apparently has definite records of accomplishment. Cincinnati, however, is in still worse case. In December, 1913, when we met there, it had begun its task. At that time it had 27,000 vaults, but during the preceding year it had closed some 200. Since then we have had no information.

Those of you who are interested in our present knowledge of sanitary conditions in American cities will find it recorded in our little pamphlet entitled "What Our Cities Do Not Know."

But in that pamphlet, despite its title, you will find evidence of progress. Bad as the present situation is, it is better than it was. Nowhere is this progress more significant than in the greater strength that is being given our health departments. There still are health departments administered as a side issue by the matron of the jail, health officers who are given their jobs because there is no other way of caring for them, but our cities and towns are beginning to realize

that health work is one of their most important functions. So of 65 cities, 36 reported that their health departments had been strengthened by being given greater powers or a more nearly adequate appropriation, only 8 that it had been weakened.

To those who are working for better housing this is a matter of immediate interest. For not only will a strong health department improve the sanitary conditions of a community, but to it must be confided the administration of a considerable part of housing legislation.

This report makes no pretense of being a complete record. It merely mentions some of the tangible evidences of progress. Behind it and far more important is the growing popular interest in housing, the growing demand that slums shall cease to exist, that our cities shall become what we are so proud of calling them, cities of homes.

Present conditions are due not to indifference but to ignorance of their existence. When ignorance has been dispelled, the conditions are changed. Nowhere has there been a better expression of the spirit of our citizens than that which accompanied the report of the Minneapolis Civic and Commerce Association upon housing in this city:

“A new spirit is developing in industry—a spirit of a realization that all industry suffers through the misfortune of any factor. The employer fails to prosper as his men fail to prosper. Bad housing for the workmen means bad business for the one who hires. In the light of this spirit the primary question is not ‘What can the tenant afford?’ It is ‘What can Minneapolis afford?’ If we are to develop in Minneapolis the highest type of civilization, if industry is to thrive per-

manently, if art and music are to serve their highest purpose, we must first recognize as an essential prerequisite to the realization of these high ideals, the providing of a home life for every family, rich or poor, that shall insure to them their inalienable right to sanitation, safety, ventilation, privacy, sunlight, space and beauty."

It was with this quotation that we closed our report on progress at the Cincinnati Conference. We can do no better than to repeat the quotation here, for the spirit it expresses has been a moving spirit in Minneapolis. What Minneapolis believes should be done, it has set out to do. And we are here because we wish to share in that spirit, and, perhaps, to contribute something to it.

**REPORTS ON PROGRESS OF THE YEAR
FROM DELEGATES**

REPORTS ON PROGRESS OF THE YEAR FROM DELEGATES

At the Second Round Table Luncheon during the Minneapolis Conference there were Three-Minute Reports on Progress of the Year from the following delegates:

Thomas Adams, Canada.
Charles W. Andrews, Syracuse, N. Y.
Mrs. Albion Fellows Bacon, Indiana.
Charles B. Ball, Chicago, Ill.
Alfred Bettman, Cincinnati, O.
Mayor Benjamin Bosse, Evansville, Ind.
John H. Cady, Providence, R. I.
Miss Emily W. Dinwiddie, New York City.
Elmer S. Forbes, Massachusetts.
Miss Hannah Fox, Philadelphia, Pa.
Edward T. Hartman, Boston, Mass.
G. A. Jordan, M.D., St. Louis, Mo.
John J. Murphy, New York City.
Lee J. Ninde, Fort Wayne, Ind.
L. T. Wilmarth, Grand Rapids, Mich.
George B. Young, M.D., Norfolk, Va.



RESOLUTIONS

RESOLUTIONS

RESOLVED: That the members of the National Housing Association assembled at the Fourth National Housing Conference express to the Minneapolis Civic and Commerce Association and to the Social Service Organizations of Minneapolis their great appreciation of the unusual thoroughness with which preparation was made for this meeting, and of the efficiency which has made the Conference run so smoothly.

That they also express their appreciation of the courtesies extended to them by His Honor, the Mayor, on behalf of the city of Minneapolis, and to the officers of the Civic and Commerce Association and all their other hosts.

RESOLVED: That a message be sent to our president, Mr. de Forest, expressing our great gratification at learning of his improved condition and our warmest wishes for his complete restoration to health at an early date.

DELEGATES

DELEGATES WHO ATTENDED THE FOURTH NATIONAL CONFERENCE ON HOUSING IN AMERICA

THOMAS ADAMS	Ottawa, Can.
Commission of Conservation.	
DAVID C. ADIE	Minneapolis, Minn.
Civic and Commerce Association.	
MISS JANET ALLARDYCE	Minneapolis, Minn.
ADOLPH ANDERSON	Duluth, Minn.
City of Duluth.	
MISS INGA ANDERSON	Minneapolis, Minn.
Trained Nurse.	
CHARLES W. ANDREWS	Syracuse, N. Y.
Chamber of Commerce.	
WILSON M. BACKUS	Minneapolis, Minn.
MRS. ALBION FELLOWS BACON	Evansville, Ind.
Secretary, Indiana Housing Association.	
CHARLES B. BALL	Chicago, Ill.
Department of Health.	
MRS. CHARLES B. BALL	Chicago, Ill.
FREDERIC BASS	Minneapolis, Minn.
A. L. BEAN	Minneapolis, Minn.
Minneapolis Humane Society.	
MISS DOROTHEA P. BEARD	Minneapolis, Minn.
HARINGTON BEARD	Minneapolis, Minn.
Member Board of Education.	
MISS CAROLINE BEDFORD	Minneapolis, Minn.
Associated Charities.	
PAUL L. BENJAMIN	Minneapolis, Minn.
Anti-Tuberculosis Committee.	
MRS. PAUL BENJAMIN	Minneapolis, Minn.
E. H. BENNETT	Chicago, Ill.
Architect.	
G. M. BESSESEN	Minneapolis, Minn.
ALFRED BETTMAN	Cincinnati, O.
Cincinnati Chamber of Commerce.	
MISS IDA BLEHERT	St. Paul, Minn.
MISS EVA BORENSTEIN	Minneapolis, Minn.
Associated Jewish Charities.	
BENJAMIN BOSSE	Evansville, Ind.
Mayor.	
MISS EMILY R. BRACKEN	Minneapolis, Minn.
H. M. BRACKEN, M.D.	Minneapolis, Minn.
State Board of Health.	
JOHN IRWIN BRIGHT	Philadelphia, Pa.
Octavia Hill Association.	

- A. L. BROCKWAY Syracuse, N. Y.
City Administration and Chamber of Commerce.
- O. L. BROLINE Kingsburg, Calif.
- EDWIN H. BROWN Wayzata, Minn.
- MRS. EDWIN H. BROWN Wayzata, Minn.
- MISS M. L. BROWN St. Paul, Minn.
Woman's Welfare League.
- MISS UDETTA D. BROWN New York City.
Housing Investigator.
- MISS ELIZABETH BRUER Minneapolis, Minn.
- C. J. BUELL St. Paul, Minn.
- MRS. IRENE LUCIER BUELL St. Paul, Minn.
- ARTHUR H. BURG Minneapolis, Minn.
- J. W. BURKE Yonkers, N. Y.
- HENRY F. BURT Minneapolis, Minn.
Unity Settlement House.
- JOHN HUTCHINS CADY Providence, R. I.
Providence Chamber of Commerce, R. I. Chapter, American Institute
of Architects.
- F. V. CANN Minneapolis, Minn.
Art Instructor Dunwoody Institute.
- MRS. ELBERT L. CARPENTER Minneapolis, Minn.
Associated Charities.
- MISS REBECCA CASSELL Minneapolis, Minn.
University of Minnesota.
- MISS CELIA CASSIDY Minneapolis, Minn.
- MRS. GEORGE S. CAVANAUGH Minneapolis, Minn.
- C. N. CHADBOURN Minneapolis, Minn.
Federation of Men's Church Clubs.
- MISS MARGARET E. CHAPMAN Minneapolis, Minn.
Wells Memorial Settlement.
- J. A. CHILD Minneapolis, Minn.
Division of Sanitation, Minnesota State Board of Health.
- MRS. GEORGE H. CHRISTIAN Minneapolis, Minn.
- FRED B. CHUTE Minneapolis, Minn.
- LOUIS P. CHUTE Minneapolis, Minn.
Civic and Commerce Association.
- HERBERT O. COLLINS Minneapolis, Minn.
City Hospital.
- MRS. D. CORNAN Minneapolis, Minn.
Minneapolis League Catholic Women.
- MRS. F. E. CRARY Minneapolis, Minn.
Civic Improvement League.
- L. M. CROSGROVE Minneapolis, Minn.
Civic and Commerce Association.
- MRS. THEODORE CROCKER Minneapolis, Minn.
- WM. A. CROSSLAND St. Joseph, Mo.
Social Welfare Board.
- MISS LULU CUMMINS Minneapolis, Minn.
- MISS CONSTANCE CURRIE Minneapolis, Minn.
Unity House.
- J. E. CUTLER Cleveland, O.
Cleveland Chamber of Commerce, Western Reserve University.
- MISS FLORENCE E. DAVIDSON Minneapolis, Minn.
Unity House.

DELEGATES

213

JOHN M. DAVIDSON	Pittsburgh, Pa.
OTTO W. DAVIS	Minneapolis, Minn.
Civic and Commerce Association.	
MRS. O. W. DAVIS	Minneapolis, Minn.
H. L. DAY	Minneapolis, Minn.
MRS. H. L. DAY	Minneapolis, Minn.
S. N. DEINARD	Minneapolis, Minn.
Saturday Lunch Club.	
MRS. H. D. DICKINSON	Minneapolis, Minn.
Woman's Christian Association, Jones Harrison Home.	
MISS MARY WATKINS DIETRICHSON	Minneapolis, Minn.
Municipal Reference Department, Public Library.	
C. F. DIGHT	Minneapolis, Minn.
Health and Hospital Committee.	
MISS EMILY W. DINWIDDIE	New York City.
Corporation of Trinity Church.	
C. E. DRAKE	Minneapolis, Minn.
W. F. DUMMER	Chicago, Ill.
MISS MARIE E. DURNING	Louisville, Ky.
Health Department, Tenement House Commission.	
MISS BEATRICE EDDY	Minneapolis, Minn.
MRS. F. H. ELLIS	Minneapolis, Minn.
Friendly Visitor Associated Charities.	
W. A. ELLIS	Omaha, Neb.
Commercial Club of Omaha.	
WALTER W. ERMATINGER	St. Louis, Mo.
W. A. EVANS, M.D.	Chicago, Ill.
Health Department, Chicago Tribune.	
JAMES EWINGTON	Minneapolis, Minn.
Jewish Improvement Association.	
F. C. FELD	Philadelphia, Pa.
Octavia Hill Association.	
MISS JULIA I. FELSENTAL	Minneapolis, Minn.
Associated Jewish Charities.	
MISS ANNE L. FERGUSON	Minneapolis, Minn.
Board of Education.	
MRS. C. M. FERGUSON	Minneapolis, Minn.
Woman's Club.	
P. L. A. FERGUSON	Minneapolis, Minn.
MISS KATE FINKLE	Minneapolis, Minn.
Juvenile Court.	
ELMER S. FORBES	Boston, Mass.
Housing Committee Massachusetts Civic League; American Unitarian Association.	
JAMES M. FORD	Kansas City, Mo.
Board of Public Welfare.	
G. L. FORT	Minneapolis, Minn.
MRS. G. L. FORT	Minneapolis, Minn.
MRS. MANLEY L. FOSSUN	Minneapolis, Minn.
Parents and Teachers Association.	
MISS HANNAH FOX	Philadelphia, Pa.
Philadelphia Housing Commission; Octavia Hill Association.	
J. FRIEDMAN	Minneapolis, Minn.
EDWARD C. GALE	Minneapolis, Minn.
Civic Commission.	

J. T. GEROULD	Minneapolis, Minn.
MRS. J. T. GEROULD	Minneapolis, Minn.
FRANK B. GILBRETH	Providence, R. I.
JOHN LEWIS GILLIN	Madison, Wis.
ROBBINS GILMAN	Minneapolis, Minn.
N. E. Neighborhood House.	
MRS. LOUISE GILMAN	Minneapolis, Minn.
N. E. Neighborhood House.	
S. R. GITTENS	Pittsburgh, Pa.
Westinghouse Air Brake Company.	
MISS ALBERTA M. GOODRICH	Minneapolis, Minn.
MISS ANN GOSMAN	Minneapolis, Minn.
Registered Nurses Association.	
MISS HELEN GRODINSKY	St. Paul, Minn.
Jewish Charities of St. Paul.	
H. M. GUILFORD	Minneapolis, Minn.
Board of Health.	
W. L. HATHAWAY	Minneapolis, Minn.
CLARENCE W. HADDEN	Minneapolis, Minn.
Boy Scouts of America.	
ARNOLD B. HALL	Madison, Wis.
University of Wisconsin.	
P. M. HALL, M.D.	Minneapolis, Minn.
Former Health Officer.	
MRS. P. M. HALL	Minneapolis, Minn.
FRANK G. HAMER	Cincinnati, O.
Cincinnati Model Homes Company.	
MISS VIRGINIA HANKINS	Minneapolis, Minn.
Civic and Commerce Association.	
E. T. HARTMAN	Boston, Mass.
Massachusetts Civic League.	
JAMES H. HARTZELL	Minneapolis, Minn.
N. F. HAWLEY	Minneapolis, Minn.
Associated Charities.	
EDWIN H. HEWITT	Minneapolis, Minn.
Chairman, Housing Committee Civic and Commerce Association.	
MRS. EDWIN H. HEWITT	Minneapolis, Minn.
MISS DELPHINE HINES	Minneapolis, Minn.
MISS MARGARET HOLDEN	Minneapolis, Minn.
St. Barnabas Hospital.	
MRS. CARL J. HOLMAN	Mankato, Minn.
General Federation Women's Clubs.	
GEORGE E. HOOKER	Chicago, Ill.
City Club.	
JAMES G. HOUGHTON	Minneapolis, Minn.
JOHN IHLDER	New York City.
Field Secretary, National Housing Association.	
JEROME PAUL JACKSON	Minneapolis, Minn.
JAMES JENKINS, JR.	Brooklyn, N. Y.
Tenement House Committee, Brooklyn.	
OTTO B. JOERNS	Sheboygan, Wis.
Association of Commerce.	
C. C. JOHNSON	Minneapolis, Minn.
C. G. W. Railway.	
S. E. JOHNSON	Minneapolis, Minn.

DELEGATES

215

DAVID P. JONES	Minneapolis, Minn.
MRS. D. P. JONES	Minneapolis, Minn.
HARRY W. JONES	Minneapolis, Minn.
Minnesota Chapter American Institute of Architects.	
STILES P. JONES	Minneapolis, Minn.
Social Service Club.	
MRS. W. A. JONES	Minneapolis, Minn.
G. A. JORDAN, M.D.	St. Louis, Mo.
Assistant Commissioner of Health.	
MARTIN L. KAHNER	Minneapolis, Minn.
CHARLES B. KERN, M.D.	Lafayette, Ind.
Indiana State Board of Health.	
MRS. C. F. KEYES	Minneapolis, Minn.
JOHN E. KIENLE	Los Angeles, Calif.
Los Angeles Housing Commission; Health Department.	
GEORGE F. KIESEWETTER	Cincinnati, O.
Cincinnati Model Homes Company.	
WALTER H. KILHAM	Boston, Mass.
Architect.	
J. R. KINGMAN	Minneapolis, Minn.
MRS. J. R. KINGMAN	Minneapolis, Minn.
MISS RENEE J. KIRK	Minneapolis, Minn.
Probation Office.	
J. M. KISTLER, M.D.	Minneapolis, Minn.
City Council.	
MRS. WILLIAM KITTLE	Madison, Wis.
Board of Commerce and Associated Charities.	
LOUIS KOCH	Minneapolis, Minn.
Boy Scouts of America, Hennepin County.	
MISS MONICA KOWALEWSKA	Minneapolis, Minn.
N. E. Neighborhood House.	
MISS ELSA PETRONELLA KRAUCH	St. Paul, Minn.
Verein Geimuetlichkeit.	
MISS GERTRUDE KULASS	Minneapolis, Minn.
MISS ALICE KURTZ	Minneapolis, Minn.
University Hospital.	
JOHN E. LATHROP	New York City.
American City Magazine and American City Bureau.	
MRS. EDWARD T. LEE	Chicago, Ill.
Chicago Woman's Club.	
MISS MARION LYNNE	Minneapolis, Minn.
CHARLES J. LIVINGOOD	Cincinnati, O.
Cincinnati Model Homes Company.	
ROBERT B. LONG	Minneapolis, Minn.
N. E. Neighborhood House.	
BLEECKER MARQUETTE	New York City.
Tenement House Committee, C. O. S.	
J. H. McELVOY	St. Louis, Mo.
R. J. McFELL	Minneapolis, Minn.
University of Minnesota.	
E. M. McMAHON	Madison, Wis.
Board of Commerce.	
MISS CAROLINE MANNING	Minneapolis, Minn.
WALTER J. MARCLEY, M.D.	Minneapolis, Minn.
City Hospital.	

MISS KATE KING MARTIN	Minneapolis, Minn.
Associated Charities.	
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217

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INDEX

INDEX

SUBJECTS

- Alley Problem, The, 131-148
- Alleys in American Cities, 133-135, 143
 - Advantages of, 135-139, 142-143, 147-148
 - Objections to, 139-140, 143-144
- Building Departments and Housing, 115, 116, 123, 186
- California, 126
- Causes of Bad Housing, 65-80
- Chicago, 125, 127
- City Planning, National Conference on, 36
- Cleveland, 126
- Court Decisions, 5, 6, 7, 8, 9, 11, 12, 15, 16, 17, 19, 23, 24, 26, 27, 28, 29, 30, 152
- Districing or Zoning, 16, 18, 20, 24, 42-43
- Education, Need of, 73-74, 76
- Fourteenth Amendment to Constitution and Police Power, 5, 20
- Government Aid, 69
- Health, 83-86, 87, 118-119
- Health Department—The Place of Housing Work in a, 113-130
- Height of Buildings, 15
- Heights of Buildings Commission, New York City, 17-18
- Houses, Types of, 182-184
- Immigrants, 66-67
- Land Inquiry Committee (English), 83
- Land Overcrowding, 68, 70, 138
- Land Subdivision and Its Effect upon Housing, 33-64
- Land Subdivision, Data on, from Fourteen Cities, 37-39
 - Regulation of, 41, 61, 63
 - Underlying Principles of, 44
- Land Subdivision from the Point of View of a Development Company, 158-174
- Land Values, 43, 68-69, 186
- Legislation, 3-32, 70-72, 88, 113-130, 153
- Lot Sizes and Shapes, 158-165
- New York City, 124
- Octavia Hill Association, 185, 187, 188, 189, 190
- Outdoor Closets and Vaults, Why They Should be Abolished, 151
- Pennsylvania, 126
- Philadelphia, 154
- Place of Housing Work in a Health Department, 113-130
- Planning the Low-Cost House, 175-191
- Police Power, 3-32, 152
- Privies, 151, 152
- Progress of the Year, 195-201
 - Reports from Delegates, 205
- Real Estate Point of View, 60-64
- Resolutions, 209
- Room Overcrowding, 30-31, 128
- Sanitation, 66, 67, 81, 85, 88, 119
- Speculation, 68, 70, 165-170

- | | |
|--|--|
| Taxation, 71, 88-112
Taxation, Investigation by New
York City Committee on,
106 | Towns and Villages, Bad Hous-
ing in, 129
Transportation, 55, 69
Wage-Earners' Dwellings, 175-191 |
|--|--|

NAMES

- | | |
|---|--|
| Ashley, Burton J., 137
Bacon, Mrs. Albion Fellows, 29,
197
Ball, Charles B., 131, 151
Bartholomew, Harland, 164
Bennett, E. H., 53, 80
Bettman, Alfred, 22
Bracken, H. M., M.D., 141
Crawford, Andrew Wright, 55,
59
Dinwiddie, Emily Wayland, 151
Ely, Richard T., 22
Feld, Fred C., 185
Fillebrown, Charles B., 92, 93,
109, 112
Forbes, Elmer S., 22, 53, 58, 65,
75, 78, 80
Ford, James, 131
Freund, Ernst, 7, 27
Gompers, Samuel, 114
Hall, Arnold Bennett, 3, 26
Hartman, E. T., 109 | Holmes, Oliver Wendell, 7, 23
Ihlder, John, 145, 158, 178, 195
Jenkins, James, Jr., 87
Kilham, Walter H., 175, 185, 186,
190, 191
Murphy, John J., 81, 109
Ninde, Lee J., 60, 75, 80, 87
Olmsted, Frederick Law, 158
Nolen, John, 33, 53, 54, 55, 58,
59, 61, 62
Riis, Jacob, 71, 122
Scharff, Maurice R., 141
Schmidlapp, J. G., 186
Sedgwick, William T., 34
Seligman, E. R. A., 102, 109, 111
Stillman, Charles C., 75
Veiller, Lawrence, 29, 31, 39,
56, 57, 60, 79, 131, 170, 178
Wagner, Mrs. Johanna von, 89,
157
Young, George B., M.D., 113,
147 |
|---|--|

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